



A Weekly Journal of Pharmacy and the Drug-trade
ESTABLISHED 1859.

Head Office: 42 Cannon Street, London, E.C.

Telegraphic Address: "Chemicus London."
Telephone No.: 852 Bank.

Branch Offices: ADELAIDE, MELBOURNE, AND SYDNEY,
AUSTRALIA.

SUBSCRIPTION RATES.

Ten shillings a year in advance, post free to any part of the world, including a copy of *The Chemists' and Druggists' Diary* next published. Single copy, 4d.; Summer or Winter Number, 1s.; *Diary*, 3s. 6d. Postal orders and cheques to be crossed "Martin's Bank (Limited)."

As an Official Organ

THE CHEMIST AND DRUGGIST is supplied by subscription to the whole of the members of NINETEEN CHEMISTS' SOCIETIES in the British Empire, including Ireland, Australia, New Zealand, South Africa, and the West Indies. Besides, its paid subscription circulation at home and to all parts of the civilised world is intrinsically and numerically unique.

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CIRCULARS AND PRICE-LISTS

sent by post are apt to return again to the sender, or to find their way, unopened, into the waste-paper basket. Manufacturers and wholesalers should avoid this sort of thing by entrusting their distribution to THE CHEMIST AND DRUGGIST. Our subscription-register is the surest way to buyers of all classes of goods connected with the drug and chemical trades. It is kept up to date by corrections almost daily; it represents the cream—nay, the total solids—of the trade of the British Empire and the best of foreign buyers. The Winter Issue of THE CHEMIST AND DRUGGIST, on January 28, 1905, is reserved for insets, and the Publisher will be glad to give inquirers printed particulars about the getting-up of insets, charges for distribution, etc. Those who decide soonest to have an inset in the Winter Issue will have the best chance of getting the pick of the positions.

DIARY POSTCARD COMPETITION.

It has been represented to us that we are giving a shorter time this year than hitherto for the return of the postcards enclosed with the 1905 *Diary*. We shall therefore keep the competition open for another week—viz., until Saturday, January 7, 1905.

Summary.

THE sixty-fifth volume of THE CHEMIST AND DRUGGIST is completed with this number. A full index is inserted between p. 1062 and p. 1063.

THE RETAIL PRICES of "Montserrat" lime-juice preparations are in future to be protected (p. 1061).

ANOPHELES WELLCOMEI is the name of a new mosquito which has been discovered in the Soudan (p. 1053).

BUSINESS CHANGES, besides those recorded under that heading, are mentioned on p. 1042 and p. 1043.

PARKES' DRUG-STORES, LTD., made a net profit of 5,277l. last year, which is a little over 260l. a shop (p. 1049).

APPRECIATIONS of the late Mr. Glaisyer and Mr. J. S. Radford by men who knew them will be found on p. 1047.

THE death of Mr. Kenneth Miller, of Pulteney Town, Wick, is reported. He was a highly respected chemist (p. 1051).

FROM the second fiscal Blue-book we extract interesting statistics respecting the chemical trade in this and other countries (p. 1057).

A RECEIVING ORDER has been granted in respect to the business of Mr. R. J. Dodd, a leading London drug-store chemist (p. 1048).

AT Bow Street, on Thursday, a Long Acre chemist was fined 5l. and 12s. 6d. costs for selling ol. amygd. persic. as almond oil (p. 1064).

TRADE in our South African Colonies has been steadily improving recently. Our correspondents send the most recent reports (pp. 1045-6).

THE Irish Local Government Report for 1903-4 states that there was keen competition for Union medicine and surgical-instrument contracts (p. 1043).

KERATIN SOLUTION has never been quite successful, but there is a prospect of its increased utility through experiments by Mr. Schöpp, detailed on p. 1050.

THE PRELIMINARY ARRANGEMENTS for the British Association meeting in South Africa next summer have been completed, and an outline of them will be found on p. 1045.

THERE has been a sensational collapse in the shellac-market owing to the financial difficulties of a large speculator, and the so-called "syndicate" is practically at an end (p. 1068).

THE STUDENTS' CORNER PRIZES go this month to competitors in North London. Another mixture of salts will be distributed to those who apply for it up to January 3 (p. 1040).

THE REVIEW OF THE YEAR, which begins on p. 1054, deals with the principal topics only, such as dutiable medicines, pharmaceutical legislation and administration, and important legal proceedings.

DR. JOHN H. CLARKE writes regarding Hahnemann's use of insoluble metals in medicine, and shows that his article on gold in syphilitic affections was written before Chrestien's observations were published (p. 1065).

BIRMINGHAM CHAMBER OF COMMERCE has interested itself in the industrial-alcohol inquiry, but Mr. A. W. Southall complains that the views of manufacturing chemists have not been represented through the Chamber (p. 1042).

THE price tendencies of chemicals and drug and technical produce during 1904 are fully epitomised under this week's Trade Report. The movements have been more largely speculative than the result of supply and demand (p. 1068).

DR. F. J. WALDO, the Southwark Coroner, says a grave defect in poison law is that mineral acids are not scheduled as poisons. Also that suicides with carbolic acid have decreased in number since that acid was scheduled (p. 1043).

THE "South African News" has been trying to reawake prejudice at the Cape on the imported-tincture question, and among other things said English preparations are bad, but our contemporary was sharply rebuked by Mr. Henry Evans, a Cape wholesaler (p. 1045).

BECAUSE a certain number of victims are seduced by Mr. Broadhead's arguments about a tittle test-case, "Xrayser" points out that the deliberate interpretation of the law by the House of Lords, to the effect that companies are outside Sections 1 and 15 of the Pharmacy Act, cannot be reversed by any Court (p. 1053).

Two interesting notice cases are reported this week. In one Messrs. May, Roberts & Co. have had to pay a clerk a week's wages in lieu of notice, Judge Edge comforting Mr. Samuel Roberts by telling him that they two only do not bet. The second case was about a month's notice in the retail trade, this principle being again affirmed (p. 1048).

Corner for Students.

CONDUCTED BY LEONARD DOBBIN, PH.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

QUALITATIVE ANALYSIS FOR JUNIOR STUDENTS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture will comprise acids and inorganic bases occurring in the British Pharmacopœia, and is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a stamped and addressed envelope, not a stamp merely) will be received up to Tuesday, January 3, and the samples will be posted on the following day.

Students' reports will be received up to Saturday, January 14. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

SPECIAL NOTE.—The analysis announced above forms the third exercise in our analytical tournament for the current winter session. The usual monthly first and second prizes in this series of analyses will be awarded only to apprentices or assistants who are preparing for the Qualifying examination of the Pharmaceutical Society of Great Britain or of Ireland, which fact must be attested on their reports. Students who adopt a *nom de plume* must adhere to it throughout the tournament.

REPORTS.

The powder distributed to students on November 30 contained 1 part of mercuric chloride, 1 part of potassium antimonyl tartrate (tartar emetic), and 8 parts of anhydrous calcium sulphate. The calculated composition of such a mixture is—

Hg	...	...	...	...	7.4
SbO	...	...	...	...	4.1
Ca	...	...	...	...	23.5
K	...	...	...	...	1.2
Cl	...	...	...	...	2.6
C ₂ H ₃ O ₆	...	...	...	...	4.4
SO ₄	...	...	...	...	56.5
H ₂ O	...	...	...	...	.3
					<hr/> 100.0

The powder contained a trace of magnesium, as impurity, and also a very small quantity of siliceous matter, insoluble in hydrochloric acid.

Samples of the powder were distributed to 74 students, and 32 reports were submitted for examination.

None of our correspondents failed to detect the presence of calcium. The failures in the detection of the other constituents of the powder were:—(a) Metallic radicals: Mercury, 9; antimony, 5; potassium, 6. (b) Acid radicals: Hydrochloric, 5; tartaric, 21; sulphuric, 2.

The small proportion in which some of the ingredients were present in the powder constituted a source of a certain amount of difficulty. As is very often the case, a few preliminary tests yielded much useful information. Thus, when a small quantity of the powder was heated in a dry tube, a sublimate was formed which was easily proved to contain a mercuric compound; and a blackening of the powder was observable, with the evolution of the character-

istic burnt-sugar odour, which suggested the necessity of a careful search for the tartaric and citric radicals. When the powder was heated with concentrated sulphuric acid, a distinct darkening also took place, and this change was accompanied by a rather brisk evolution of small gas bubbles. By the aid of blowpipe and charcoal, or, better, by applying the more convenient and elegant film tests, the presence of antimony was readily shown. Armed even with only this amount of preliminary knowledge—i.e. that mercury and antimony were present, along with, probably, the tartaric or citric radical—the student was in a much better position to deal satisfactorily with the systematic separation and recognition of the various constituents than if no preliminary examination had been made. The fact that the slight charring on heating the powder alone, and the slight darkening on heating it with concentrated sulphuric acid, were alike overlooked or disregarded by many students, is responsible for most of the numerous failures in detecting the presence of the tartaric radical.

The hydrogen sulphide precipitate of the copper and arsenium groups caused a good deal of trouble. When hydrogen sulphide was being passed into the original hydrochloric acid solution of the powder, a precipitate appeared which was yellowish to begin with, but became orange, and, finally (when the liquid was fully saturated with hydrogen sulphide), brownish. A number of students failed to carry the precipitation beyond the stage at which the precipitate was orange, and reported this precipitate as being completely soluble in ammonium hydrosulphide, and as consisting of antimonious sulphide only. This did not coincide with our experience. We prepared some of the orange precipitate by incomplete precipitation with hydrogen sulphide, washed it thoroughly, and then treated it with ammonium hydrosulphide, when we found that only a part of it dissolved in this reagent, while the remainder was turned quite black, and consisted of mercuric sulphide.

A change of a somewhat uncommon kind, which took place when the powder was heated with a solution of sodium carbonate (as in preparing the solution to be tested for acid radicals), or other alkaline solution, was the formation of a dark coloured precipitate. This change, which was due to the mutual action upon each other of the tartar emetic and the mercuric compound present in the alkaline mixture, and no doubt involved the reduction of the mercuric compound, led several correspondents to conclude that the original powder contained a mercurous salt. Reducing actions of this description occur much more commonly in alkaline than in acid solutions.

So many correspondents reported the presence of the carbonic radical that we made a special test to ascertain whether any appreciable quantity of this radical was really present. As the experiment yielded a negative result, we fancy the supposed evolution of carbonic anhydride, when the powder was treated with dilute hydrochloric acid, was nothing more than the escape of some air bubbles.

The furnishing of a definite proof that the powder contained the tartaric radical was a matter which demanded careful and delicate analytical treatment. Of the comparatively few students who concluded that a tartrate was present, only a very small proportion established conclusively that the precipitate which they took to be calcium tartrate did not consist mainly, or entirely, of calcium sulphate.

PRIZES.

The First Prize for the best analysis has been awarded to H. B. TORNDREN, 32 Whitehall Park, Hornsey Lane, N.

The Second Prize has been awarded to

M. B. JACK, 66 Burma Road, Clissold Park, N.

First Prize.—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

MARKS AWARDED FOR ANALYSIS.

1. Correspondents who are unqualified:

H. B. Torndran (1st prize)	97	R. N. V. D.	...	81
M. B. Jack (2nd prize)	95	Keiro	...	79
Diazo	94	F. W. Whiteley	...	77
Mae	91	Ian	...	75
R. W. B.	89	Lucifer	...	74
C. H. M.	87	S. T. Briggs	...	73
Ipecac	87	Cujus	...	66
D. Cordiner	86	J. W. B.	...	65
A. Gray	85	G. K. F.	...	58
Pharmacy	85	Maney	...	56
W. P. P.	85	Squill	...	55
Thymol	84	Lentiscus	...	46
Xenon	84	Victor L. Blay	...	41
		Omyx	...	40

2. Correspondents who are qualified, or who have not indicated that they are unqualified:

Danwer	76	Ooma	...	81
Lignum	69	R. D. A. M.	...	73
Norvic (non-competing)	98			

TO CORRESPONDENTS.

H. B. TORNDRA.—Some of our correspondents pass the "Minor" during the tournament period, and therefore we expect every student who is still unqualified to state the fact on each report.

M. B. JACK.—If you really mixed the powder with NaCl and $K_2Cr_2O_7$, and heated the mixture with sulphuric acid you were pretty certain to obtain indications of the presence of a chloride. We trust this was only a slip of the pen, but we have nevertheless been obliged to regard it as a serious error. Read the general remarks concerning the "hepar" test in our last report (*C. & D.*, November 26, 1904, p. 885).

DIAZO.—On consideration you will doubtless appreciate that the acetic-acid solution of the barium group precipitate could scarcely yield a precipitate of barium sulphate on the addition of calcium sulphate, seeing that the original solution of the powder contained calcium and the sulphuric radical in abundance.

MAC.—You report the black portion of the hydrogen sulphide precipitate (the portion insoluble in ammonium hydro-sulphide) as soluble in nitric acid and yielding a solution which gave the reactions of mercury; but mercuric sulphide (of which this residue consisted) is insoluble in nitric acid.

R. W. B.—The evidence you adduce is insufficient to prove either the presence or absence of arsenium.

C. H. M.—The remark that the powder "seemed quite insoluble" in water possesses little value in an analytical report. You should have evaporated a drop of the aqueous extract to dryness and observed whether any residue was left. The precipitate of ammonium magnesium phosphate is crystalline, not flocculent.

A. GRAY.—It is unfortunate that you did not follow up the indication of the presence of organic matter which you obtained on heating the powder with sulphuric acid. Had you done so you ought to have detected the tartaric radical. It is a good plan to pass hydrogen sulphide through a hot solution to guard against arsenate remaining unreduced, but it should be passed through the subsequently cooled solution also, so as to ensure complete precipitation of cadmium, lead, bismuth, etc., as sulphides.

PHARMACY.—It is unnecessary to add excess of ammonia to an acetic-acid solution, prior to adding ammonium oxalate as a test for calcium, since calcium oxalate is insoluble in dilute acetic acid.

R. N. V. D.—You are too timorous in stating definite conclusions. From the evidence you obtained we should have had no hesitation in pronouncing a tartrate to be present in the powder. You put down both tartrate and citrate, and represented both as "doubtful"—a lame kind of conclusion, to which we attach very little importance.

F. W. WHITELEY.—After the removal of the other metallic radicals we had no difficulty in observing the flame coloration due to potassium. Hydrogen sulphide passed through a solution containing mercuric salt would eventually yield a black precipitate of mercuric sulphide, although at a certain stage the precipitate is orange. See the last sentence of the reply to M. B. Jack.

IAN.—Resolve to abandon the use of magnesium sulphate as a reagent to test for the presence of carbonates: it is absolutely worthless for this purpose, and, under the conditions you describe, it could not possibly yield a precipitate of magnesium carbonate.

S. T. BRIGGS.—You probably volatilised the greater part of the mercury compounds formed by treating the mercuric sulphide with aqua regia when you evaporated the aqua regia solution to dryness. The precipitate yielded by calcium chloride and mistaken for calcium citrate most likely consisted of calcium sulphate. You do not appear to have tested for ammonium salts.

J. W. B.—You report that in testing for acid radicals barium chloride gave a white precipitate in the portion of the sodium-carbonate solution acidulated with hydrochloric acid (from which you concluded that a sulphate was present), but that it gave none in a neutral solution. This requires some explanation, which we are unable to furnish.

SQUILL.—Practising upon a mixture prepared in imitation of this month's exercise will throw more light upon the errors into which you have fallen than any remarks which we could compress into sufficiently short space in this column, and we strongly recommend you to prepare and exhaustively examine such a mixture.

LENTISCUS.—Tartaric acid in presence of S.V.R. does not form a test for potassium which is sufficiently delicate to apply in the case of a dilute solution. Your failure to obtain a precipitate (of barium sulphate) on adding barium chloride to the sodium carbonate solution for acid radicals after neutralising with acetic acid and adding a drop of ammonia requires explanation, seeing that the sulphuric radical was present in the solution tested.

LIGNUM.—On percolating the hydrogen sulphide precipitate with potassium hydroxide solution, a colourless solution was obtained, not an orange one as you report. You do not appear to have looked for magnesium, potassium, or sodium in the systematic examination.

NORVIC.—We admire your ready perception of the difficulty in testing for the tartaric radical and your ingenuity in devising a satisfactory method of overcoming the difficulty, quite as much as we do the neat and ornate character of your report. The trace of magnesium seems to have eluded your vigilance.

R. D. A. M.—Your treatment—it could scarcely be called examination—of the arsenium-group precipitate was of a most perfunctory kind, and it is not surprising that it did not lead you to a correct result. Note that ammonium arsenate is not as delicate a test for magnesium as ammonium phosphate is.

W. MACBRIDE.—The barium-carbonate method for the separation of the metals of the zinc-iron group is fully given in the tables appended to Valentin's "Qualitative Analysis;" also in the Qualitative Volume of Treadwell's "Analytical Chemistry"—one of the best recent books on the subject. The film tests for which asbestos thread is used are those described in this column about a year ago (*C. & D.*, November 28, 1903, p. 910).

English News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Brevities.

A second and final dividend of 2s. 0½d. in the pound is payable to creditors of Allison, Johnson & Foster, Ltd., at the Official Receiver's office. Hull, on January 19, 1905.

A Stafford woman, named Webb, has died from burns caused by the ignition of a mixture of methylated spirit and turpentine with which she was cleaning the grate.

Mr. C. Goddard Clarke, J.P., L.C.C. (Liberal candidate for Peckham), says that a tax of 6d. in the pound on London land would produce no less an annual income than four millions sterling.

While a chemist's assistant at Kirkby Stephen, named Alfred Penrith, was mixing some foot-rot mixture, composed of sulphuric acid and linseed oil, last week, the bottle containing the fluid burst. It is feared that Penrith will lose the sight of an eye, owing to some of the acid entering it.

At an inquest at Southwark, on December 27, on a child who had died from convulsions, the mother mentioned that she had been giving the child certain teething-powders. The Coroner (Dr. F. J. Waldo) deprecated the use of "these quack remedies." Government, he said, made money out of these patent medicines through the stamp-duty, but it was a most iniquitous proceeding.

Analysts' Reports.

One sample of camphorated oil and one sample of boric acid (both genuine) were taken in Stoke Newington last month for analysis under the Sale of Food and Drugs Acts.

In Westminster a sample of glycerin was found to contain 5 per cent. of water, and a sample of "almond oil" contained no almond oil. In the first case the vendor was cautioned, but legal proceedings are to be taken with respect to the "almond oil."

Contracts.

The tender of Messrs. Lynch & Co., Ltd., Aldersgate Street, E.C., has been accepted by the London County Council for the supply of first-aid bandages and Carron oil for the Stores Committee.

Isle of Thanet Union.—Mr. J. H. Skitt, chemist and druggist, of Ramsgate, for drugs for the Ramsgate district for a year; Fells & Sons, Ramsgate, for invalid bovril at 20*l.* 8*s.* per gross 8-oz. bottles; Mr. H. A. Baker, Canterbury, carbolic soap, at 18*s.* 6*d.* per cwt. Mr. T. W. Robinson will supply drugs to the Hull City Asylum.

Pareel-post to China.

The Postmaster-General announces that on and after January 1, 1905, parcels will be accepted under the ordinary conditions for transmission to Macao in China. The rates by sea direct will be: Up to 3 lb. 2*s.*, 3 lb. to 7 lb. 3*s.*, 7 lb. to 11 lb. 4*s.*; *via* France or *via* France and Italy the rates will be 3*s.*, 4*s.*, and 5*s.* for the respective weights. Parcels may be insured up to 20*l.* in value.

Sheffield Notes.

The Sheffield Pharmaceutical Athletic Club recently played a football match at Millhouses against Messrs. Roberts's team, winning by three goals to two.

Mr. G. T. W. Newsholme has been appointed a member of the committee making arrangements for the annual Charity Ball which this year is being organised in aid of the Royal Infirmary.

Mr. Samuel Acton, whose death was recorded last week, was the eldest son of the late Mr. John Acton, chemist and druggist, who was apprenticed to Mr. Hawksworth, High Street, Sheffield, and started in business for himself as long ago as 1825 in Union Street, removing to Buxton afterwards.

The majority of local pharmacists made their usual extra show for Christmas, the scheme of decoration (which in some instances was very effective) being mostly made up of perfumes and similar lines suitable for presents. It is doubtful, however, whether the fog, which was hanging over the city for some days prior to the 25th, did not rob pharmacists of the bulk of the return usually seen for the extra trouble, for on all hands are complaints of the disastrous effects of the fog on Christmas trade.

The Sheffield Board of Guardians, at their meeting last week, spent three hours discussing the question of the separation of the hospital from the workhouse, the discussion being raised by a motion to rescind the decision to separate the institutions adopted on November 30. A strong point was made of the fact that the voluntary medical charities of the city are filled to overflowing by persons who can well afford to pay for medical attendance, and, as a consequence of this abuse, the poor are unable to get "recommends" and are driven into the Union hospital. Mr. Newsholme (Chairman of the Hospital Committee) figured largely in the debate, which was animated at times, one speaker declaring that the Board is run by a quartette of Guardians, of whom Mr. Newsholme is one. The struggle resulted in the re-affirmation of the principle of separation by fourteen votes to twelve.

Birmingham Notes.

Mr. Evans, who has sold his business in Moseley Road, has joined a relative by marriage (Mr. Bailey, optician, Bennett's Hill), and has decided to adopt this commercial branch of physics.

Mr. Pickering has purchased Messrs. Restall's business at the corner of Moseley Road and Moseley Street, Highgate, and intends to carry on a first-class business in druggists' goods under qualified management.

Mr. A. M. Chance, F.C.S., has taken strong exception to the utilisation of Sunday for a visit, church parade, and

meeting, at the Birmingham Town Hall, of the detachment of the Coldstream Guards, because it is merely intended as a display to encourage enlistment.

A botanical friend suggests that local students of pharmacy who aspire to Minor honours should pay a visit to the North-Western Arcade and see the magnificent display of the following "probables" on the botanical table at his next examination: Euphorbia, arum lily, poinsettia, convallaria, amaryllis, narcissus, double geranium and the Christmas rose.

The funeral of the late Mr. Registrar Granger took place in most dismal and foggy weather on Thursday afternoon, December 22, at Witton Cemetery, in the Friends' burial portion, before a very large concourse of people. Pharmacy was represented by Messrs. Alderman Clayton, Wilfred Southall, Alfred Southall, F.C.S., Gilbert Southall, Alfred Southall, jun., F. W. Freeman, and F. H. Alcock. In the chapel adjoining, a subsequent memorial meeting was held, when Mr. George Cadbury gave an address and Mr. Wilfred Southall offered prayer.

The Government has under consideration a scheme for the formation of a Volunteer Veterinary Corps. It is often wondered why a Volunteer corps cannot include under its functions one of administering gratis to its sick members such medical and surgical aid as is required—the medico to be honorary, and the dispensing to be distributed among the pharmacists of the place and charged at club rates. Birmingham has an enormous crowd of young men as Naval Cavalry, Infantry, and Artillery Volunteers. In the last are Mr. Meggison, the apothecary of the Eye Hospital, and Mr. F. Barlow, chemist, Balsall Heath.

The Birmingham Chamber of Commerce is taking a prominent part in the movement to obtain greater facilities for the use of alcohol duty free for industrial purposes. Various members have given evidence before the Committee appointed by the Chancellor of the Exchequer, and at the meeting last week Mr. A. W. Southall complained that the views of manufacturing chemists had not been represented through the Chamber; but the Chairman (Mr. Taylor) informed Mr. Southall that it was intended to form a chemical section, to which all chemical subjects would be relegated. The whole question is one of considerable importance to Birmingham, where, it is said, more lacquer is made than in all the rest of the world put together. The "Daily Post" has been making inquiries as to probable substitutes for naphtha, and says:

The manufacturers contend that wood naphtha and turpentine are not the only effective denaturants, and that they should be allowed to mix the alcohol with denaturants that are not inimical to the process of manufacture. In the case of the lacquer-manufacture it is suggested that it is only necessary to mix the alcohol with shellac, which is unpotable, and therefore would spoil the spirit for drinking purposes, but is an essential ingredient of lacquer, and therefore would improve the spirit for manufacturing purposes. Chemists claim that the Revenue authorities should be satisfied if they saw the alcohol mixed with one or other of the constituents of the particular drug that was in process of manufacture. . . . A leading firm of chemical-manufacturers at Bristol state that practically the whole of the trade in drugs containing alcohol has got into the hands of the Germans because of the duty on the alcohol.

The last statement is wrong as it stands, but may originally have been put in another way nearer the mark.

The Week's Poisonings.

Six deaths from unscheduled poisons and an equal number from scheduled poisons constitute the total death-record for the week. Six of these were misadventures. The scheduled poisons taken included morphine (taken by Sidney Richardson, a toolmaker, of Whitechapel Road), laudanum (with which a Birmingham woman poisoned herself), carbolic acid (administered in mistake for medicine to John Sands, of Nottingham, by his wife), cyanide of potassium (taken in error by Frank Green, an Exeter tailor), belladonna liniment (given in mistake to William James Eaton, of Faversham), and oxalic acid (taken with suicidal intention by a Barnstable man named Twitchen). At the inquest on the last-mentioned victim evidence was given by Mr. R. F. Idenden, chemist and druggist, Barnstable, who deposed to selling deceased 6 oz. of oxalic acid

for cleaning brass. He cautioned deceased about leaving it lying about. The jury added to their verdict of suicide while insane a rider to the effect that they were of opinion "that the chemist should not have sold deceased so large a quantity of poison."—Of course the unscheduled successor to carbolic acid figures largely in the "unscheduled" lists. Three deaths are attributed to hydrochloric acid. John Wilkinson, a wire-worker, of Tabard Street, Borough, drank "killed" spirit of salt used for soldering-purposes. At the inquest Dr. F. J. Waldo, the Coroner, said he considered there was a grave defect in the law in regard to the sale of poisons. The Pharmacy Act scheduled certain poisons which could only be sold under conditions, but hydrochloric acid (spirit of salt), ammonia, and other poisons were obtainable by anybody at oilshops without any restriction. Since carbolic acid was placed in the schedule two years ago the cases of suicide by its use had almost ceased, and it was time that others were added to the restriction-list.—The same poison was taken in mistake for gin by Louisa Strike, of Latimer Road, W. At the inquest held at Hammersmith by Mr. Oddie, on December 28, evidence was given by Walter Mills, an oilman, of 59 Latimer Road, who said he sold the deceased that morning twopennyworth of spirit of salt for cleansing-purposes. It was in a salad-oil bottle and labelled "Poison." She had frequently bought it before in the same bottle. It was his practice never to serve children with the poison. He could not account for deceased mistaking it for gin, as it was brownish in colour and threw off fumes. The jury returned an open verdict.—The other hydrochloric-acid poisoning was at Luton, where a fatal dose was taken by Arthur Kendred.—A bombardier at Woolwich was accidentally poisoned by drinking liquid ammonia, said to have been given him as a joke by some of his comrades, one of whom is in custody on a charge of murder.—Two deaths by binoxalate of potassium have occurred—one at Bath, where the salt was taken by Sarah Gibbons, a sufferer from melancholia, and the other at Liverpool, where Alice Owens took the poison in mistake for a headache-powder.

Irish News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Carbolic-poisoning.

The week's poisonings include a case at Belfast, the victim being Mrs. Kate Healey, aged twenty-nine, of Stourbridge. Deceased had been deserted by her husband, but concealed the fact from her friends. In despair she drank carbolic acid, with fatal results.

The L.G.B. Report.

The Report of the L.G.B. for Ireland for 1903, just issued, in dealing with the medicines and medical supplies for Irish Unions, states:

There was a keen competition for the Union contracts for the supply of medicines and of medical and surgical appliances, with the result that the average abatements allowed on the prescribed prices were 21 per cent. and 22½ per cent. respectively. In the previous year the abatements were 15¼ per cent. and 12½ per cent. respectively. The medicine-contractors have, on the whole, carried out their contracts satisfactorily, and the galenic preparations supplied during the year were found to be of good quality, and better than in any previous year. Of 9,511 samples examined by the Union analysts, only 318 (or about 3½ per cent.) were reported as not being strictly in conformity with our recognised standards. In many of these cases the deficiencies were slight. Our prescribed lists of medicines and medical and surgical appliances have been thoroughly revised during the year. In this work we had the advantage of the valuable assistance of a Joint Committee of the Royal Colleges of Physicians and Surgeons in Ireland. A good many items included in previous lists, which were little used, or which appeared to be unnecessary, have been omitted. The prescribed prices have been also revised, having regard to current market quotations, on the same principle as that followed in previous years. The scrutiny of the medical officers' requisitions forwarded with the half-yearly claims for recoupment has been continued during the year. Irregularities, which were found to be of frequent occurrence when this scrutiny was first undertaken, have

now to a great extent disappeared, and fewer cases of extravagance have been met with than during the period covered by our last report.

The pharmacist also reports on the work done by him during the year.

Scotch News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Business-changes.

Mr. Alexander McRae, chemist and druggist, has removed from Arbroath, and started business at Loanhead, near Edinburgh.

Mr. Kenneth McLennan, chemist and druggist, has acquired the business carried on by Mr. J. N. L. Sturrock, at 89 Gilmore Place, Edinburgh.

Mr. James E. Gauld, chemist and druggist, has purchased the business of Mr. G. B. W. Archer, Dalkeith. Mr. Archer continues at Eskbank.

Mr. W. Hustler, resident representative of Messrs. Allen & Hanburys, Ltd., in Scotland, may now be addressed at 212 West Princes Street, Glasgow, W.; telephone number, "5027 Corporation."

The partnership of William Sinclair & Co., wholesale druggists and merchants, Aberdeen, of which Mr. Alexander Stephen and Mr. Alfred Duffus were sole partners, has been dissolved by mutual consent as at October 31, 1904. All debts due to and owing by the firm will be received and paid by Mr. Alexander Stephen, who will continue to carry on the business.

Mr. W. S. Glass reminds us that he bought Messrs. James Robertson & Co.'s business from the executors of the late Mr. William Burley, who had acquired it from Mr. Thomas Thompson, and owned it at his death. Mr. Glass also desires the fact not to be overlooked that he takes the manufacturing, retail, and wholesale connections from 35 George Street to his premises at 50 North Bridge, Edinburgh.

Edinburgh Chemists' Dance.

The Committee elected by the Edinburgh Chemists', Assistants', and Apprentices' Association, the Edinburgh District Chemists' Trade Association, and the Pharmacy Athletic Club, announce that they have arranged to hold a dance in the Kintore Rooms, 74 Queen Street, on Wednesday, February 1, 1905. Tickets (double 10s. 6d., single 6s.) may be obtained from any members of committee, who are Messrs Peter Boa (Chairman); A. Currie, 162 Ferry Road, Leith; J. P. Gibb, c/o Rames, Clark & Co.; George Hadden, 19 Duke Street; A. McCutcheon, 16 Leven Street; R. McDougall, 1 South Clerk Street; D. McGlashen, 174 Fountainbridge; Jas. Muir, 104 South Back Canongate; D. S. Napier, Ruby Villa, Sciennes Gardens; Jas. Nesbit, 236 High Street, Portobello; W. Ogilvie, 39 Forrest Road; A. G. Paterson, 19 Duke Street; E. O. Rowland, 117 Princes Street; G. H. C. Rowland, 117 Princes Street; G. Somerville, 18 Hope Park Terrace; J. Tait, 36 York Place; D. A. Young, 119 George Street; and G. D. Thomson (Convener), 73 Princes Street.

Dundee Notes.

Speaking at the distribution of prizes at the Dundee Technical Institute on December 23, the Chairman, Mr. James Stevenson, urged employers to afford apprentices facilities to attend the classes regularly. "Many chemists," he said, "are defaulters in this respect, and he was of the opinion that these gentlemen should be approached on the subject." On the same day Messrs. Ferrier & Son, chemists, Hilltown, were advertising for an apprentice and mentioned "hours allowed for classes."

Mr. William Mair, F.C.S., formerly of Dundee, repeated his lantern-lecture on the United States to the Forfarshire Chemists' Association at Mather's Hotel, Dundee, on Wednesday afternoon. Mr. John H. Thomson, President of the Association, was in the chair, and there was a goodly gathering of chemists and their lady friends. Apart from the topics dealt with last week (see *C. & D.*, page 1042), Mr. Mair introduced fresh "local

colouring," and gave the Association a personal message from Mr. Albert E. Ebert, pharmacist, of Chicago, who in 1867, with Mr. William Proctor, attended the meeting of the British Pharmaceutical Conference held in Dundee and there formed friendships which Mr. Ebert still cherishes, and which brought substantial aid from British chemists to the Chicago College of Pharmacy when it was wiped out in the fire of 1871.



While in Chicago Mr. Mair was shown the Attfield Hall (commemorating the assistance) and the books presented by the pharmacists of Great Britain, including the seven folio volumes in vellum of "Galen Septima Classis" (1556), originally from the library of Mr. T. Merson. Among the lantern-slides was one including portraits of Messrs. Caswell A. Mayo and Thomas J. Keenan, associate editors of the "American Druggist." Mr. Keenan, whose portrait we reproduce, is a Dundonian, and served his apprenticeship with the late Mr. John J. Donaghey, Dundee. Afterwards he went out to New York, where he was an assistant to the late Dr. Charles Rice, of the Bellevue Hospital, and while there helped the late Professor P. W. Bedford in his work on the "Pharmaceutical Record," which was ultimately amalgamated with the "American Druggist."

At the close of the lecture, which was listened to with great interest by a large audience, Professor Marshall, of University College, and Dr. R. Buist expressed their gratification at being present, and complimented Mr. Mair on his interesting and graphic description of the views thrown on the screen. Bailie Doig proposed a vote of thanks to the lecturer, which was seconded by Mr. Kerr, and carried by acclamation.

French News.

(From our Paris Correspondent.)

AT THE PARIS ACADEMY OF MEDICINE on Tuesday, December 27, M. Chamberland, assistant director of the Pasteur Institute, Paris, was elected a member of that body in place of the late M. Duclaux.

A RAILWAY CATASTROPHE.—Much sympathy is felt in Paris for M. Marcelin Berthelot, the distinguished and venerable chemist, in the sad loss he has sustained by the death of his grandson, M. Olivier Lyon, who was killed in the serious railway accident that occurred near Paris on the Northern Railway of France, on Friday night, December 23. M. Lyon was aged twenty, and was serving under the Colours in the 43rd Infantry Regiment stationed at Lille. He was a son of the Rector of Lille University.

"DOCTOR" CASAN'S OINTMENT. Recently, at a Paris police court, an old man, named Casan, was fined 200fr. (8l.) for illegal practice of medicine. He was in the habit of having prospectuses distributed outside the Saint-Louis Hospital, Paris, in which he stated, among other things—

Yes, let it be proclaimed far and wide, the science from which Dr. Casan has snatched its secrets is feared in high places, lest it should interfere with the celebrity of that multitude of doctors, large and small, of *savants* and literary men (remaining in their old ruts) who, in presence of the triumph of Dr. Casan, are obliged to own themselves vanquished and bow before him.

The defence was that the "doctor" only treated patients with his ointment who were considered incurables by the Faculty, and this free of charge and for pure love of humanity.

A SUCCESSFUL STUDENTS' SOCIETY is the Amical Association of French Pharmacy Students, founded in 1896, and occupying premises in the Boul' Mich', a stone's-throw from the Pelletier-Caventou statue. The "A.A." had its origin at the Café Procope, the establishment immortalised by Gam-

betta, etc., now a restaurant largely frequented by students. It was felt that at the Students' General Association, the pharmacists had not a sufficient part in the management; not through their scanty numbers or want of intelligence, but because the financial and social position of the law students gave them a natural advantage. So the A.A. was formed, and—mindful of the power of the Press—also its widespread and profitable monthly journal, "La Pharmacie Française." MM. Planchon, Moissan, Villiers, Guignard, and other leaders of the professional staff took a kindly interest in the infant journal, and their signed contributions to its pages gave it an excellent start. MM. Berger and Hubac were chief among those who bore the burden and the heat of the day and piloted the A.A. from a tiny room in the rue de Seine to its present spacious premises on the Boulevard St.-Michel, with its dark-room and fencing-room, library and reading-room, studies and classes, President's office, registry office for assistants, collection of drugs, etc. At present M. Chamagne is President, and MM. G. Oudin and G. Tinard Vice-Presidents. *Fêtes* are annually organised which have the double object of bringing the members together and making the Association better known; and a certain sum is placed annually at the disposal of the President and Secretary for giving speedy and discreet relief in cases of immediate necessity among pharmacy students.

AN ANNIVERSARY SOUVENIR.

WE have previously noted the celebration by the Pharmacie Centrale de France of its fiftieth anniversary, and now there reaches us a very handsomely produced souvenir of the occasion. The Pharmacie Centrale de France is installed in the former town house of the Duc d'Aumont at 7 rue de Jouy, Paris. This fact furnishes ample material for the introductory portion of the souvenir volume. It is a scholarly production, and the ample references give a confidence to the reader that it is a chapter of the real history of the most section, occupying about half the book, is a history of the novelist. Many of the decorations still remain to give an idea of the splendidly appointed mansion, these being specially noticeable in the rooms now occupied by the director of the Pharmacie Centrale. The second portion of the souvenir is a history of pharmacy and apothecaries, the Arabian origin of the art of pharmacy being shown. Some interesting pictures of old pharmacy-pots, of the interior of a sixteenth-century chemist's shop, and historic French pharmacists are appropriately given in this section. The third section, occupying about half the book, is a history of the Pharmacie Centrale, the pharmacists' drug-house of France. Dervault, known to most chemists for his "L'Officine" in 1852, worked out an idea for a co-operative wholesale drug-house, and circularised all the French pharmacists with an outline of his scheme. The scheme took practical shape, and the Association was duly founded with a capital of a million francs (it is now ten millions), subscriptions only being received from pharmacists. Business operations began on January 15, 1853, and since then progress has been steady. Branches were opened at Bordeaux, Toulouse, Nantes, Rouen, Marseilles, Strasburg, Bayonne, Lille, and Rennes, and a journal, "L'Union Pharmaceutique," established. In 1867 the wholesale drug-business of Ménier (established in 1816) was amalgamated with the Pharmacie Centrale, the chemical-works at St.-Denis being one of the properties. Dervault died in 1879, and was succeeded by M. Genevoix, and on his death in 1890 the present director, M. Charles Buchet, was appointed, and he has amply justified the remark of the late M. Fumouze that "M. Buchet est bien l'homme que nos voisins d'Angleterre désignent par—the right man in the right place." A full description on and many illustrations are given of the Paris house, the St.-Denis works, and the Lyons and Bordeaux branches; the groups of directors and employés being eloquent witnesses of the extent of the business done by the Pharmacie Centrale. Eight thousand accounts are sent out each month. M. Georges Soenen, the manager of the Lyons branch, is well known as a pharmacist, and for a history of the Pharmacie Centrale, which he wrote in 1894, material from which has been utilised in the compilation of the present volume. The London branch of the Pharmacie Centrale at 13 St. Mary Axe, E.C., is under the direction of Mr. Astor Boisselier, and is specially concerned with the purchase of crude drugs, London being the drug-mart of the world. There is much more that might be said about this interesting book, but we will content ourselves by mentioning a list of twenty-six employés who have obtained the medal of the Pharmacie Centrale after twenty-five years' service, and another list of twenty-five employés who have won the medal of the Chamber of Commerce for thirty years' service.

South African News.

(From our own Correspondents.)

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:

South African Pharmaceutical Association.
Pharmaceutical Society of Cape Colony.
Natal Pharmaceutical Society.
Transvaal Pharmaceutical Society.
Rhodesia Pharmaceutical Society.
Northern District Chemists' Association.
Pharmaceutical Society of Orange River Colony.

Cape Colony.

IMPORTS.—During the first nine months of 1904 the imports of drugs and chemicals into Cape Colony amounted to 188,000*l.*, against 293,000*l.* during the corresponding period of 1903.

NOTIFICATION OF A PATENT for an invention for "improvements in the manufacture of milk powder" has been deposited with the Attorney-General at Cape Town by Mr. Adolf Glas, 114 Alt-Moabit, Berlin.

THE COMMON-SENSE OF PRESCRIBING.—A case of some importance to chemists was decided by Judge Koetze in the Eastern District Court on November 25. A man went to a chemist, told him that his child was ill, and asked for medicine. The chemist made inquiries regarding the symptoms and then prescribed certain powders, for which he charged half a crown. Subsequently the child died, and the chemist was thereupon charged with contravening Section 35, Act 34 of 1891 in that he did unlawfully, and without a licence, practise as a doctor. Judge Koetze, in dismissing the case, said:

I do not think upon this evidence, the accused, who is a licensed chemist, can be said to have practised as a doctor. He did not hold himself out as a medical practitioner, nor did he make any charge for service or advice—he simply made a charge for the medicine which he sold as a chemist. It is a common practice for people who do not feel well to go into a chemist's shop and ask for some remedy, which is either administered to them in the shop or taken away with them. If a person asks a chemist in the ordinary course of his business for some medicine to cure a headache or a pain in the chest or stomach, and the chemist thereupon advises a certain medicine, hands it to such person and makes the ordinary charge for it, I think it cannot be justly said that he has practised as a medical practitioner, and has infringed or contravened the provisions of the Act of 1891. So far as Section 35 of the Act is concerned, the accused appears to have done nothing more than act in the manner I have supposed.

BRITISH ASSOCIATION'S VISIT.—At a meeting of the Council of the South African Association for the Advancement of Science held at Cape Town on November 22 the visit of the British Association to South Africa next year was discussed, and it was decided to send a circular to all centres in South Africa to the effect that each centre to be visited by the Association will be wholly responsible for the local arrangements connected with the visit. Advice is given as to arrangements for receptions, excursions, and so forth, and it is intimated that in order to co-ordinate the proceedings there will be nominated a Central Committee, under the presidency of Sir David Gill, with whom the secretaries of all local Reception Committees should correspond. The general programme is as follows:

The visitors will land in Cape Town on August 15, 1905, where the presidential address will be delivered on the evening of the day of landing (Tuesday), the rest of that week being devoted to meetings in the mornings and lectures and social functions in the afternoons and evenings, and that on the Saturday evening a special steamer will leave direct for Durban. (For the convenience of members wishing to see Port Elizabeth, the coast mail steamer may be detained at Cape Town till Friday.) About two days each will be devoted to Durban and Pietermaritzburg, and another couple of days to the Natal battlefields, so that the visitors would reach Johannesburg on Monday, August 28, and have the rest of that week on the Rand and in Pretoria, going thence, *via* Bloemfontein, to Kimberley, and after spending one day at the latter and two at the former town, proceed to Bulawayo (one day there), and finally to the Victoria Falls.

Sir David Gill and Dr. Gilchrist are to take in hand the formation of the Central Committee.

TINGTURES.—The "South African News" of December 5 had an editorial on this subject. It opened with a reference to the Select Committee which sat last Session to inquire into Colonial Industries, and gave quotations from the evidence given by Mr. Harry Evans, of Messrs. P. J. Petersen & Co. Our contemporary in this article gets along all right until it starts to make "copy" out of that gentleman's version of the question in general. *Inter alia*, the "News" says:

In England there is an Excise, but the amount paid on Excise is refunded to exporters of tinctures, liniments, and other articles containing spirit. Many manufacturers use potato and grain spirit instead of spirits of wine, and in consequence are able to produce at a very low figure, and as usual the Colonial consumer is slow to help the Colonial producer and tends to prefer the bad cheap article from England to the good but less cheap article made here.

The "News" tells its readers that South Africa loses 250,000*l.* per annum through not collecting the spirit-duty on medicine containing spirit, and then goes on to deal with the visit of Mr. J. C. Hewlett to South Africa, saying:

The Government promised to take the matter up, and it appears that this was done. But Mr. Hewlett, a member of one of the largest English firms, thereupon made a journey to South Africa, and visited, amongst other places, Johannesburg. . . . We have been shown a telegram announcing the final decision, and also a circular from the representatives of the English firm in question describing Mr. Hewlett's victory, etc., . . .

Our Cape correspondent had a few minutes' chat with Mr. Harry Evans as he was boarding his automobile *en route* for his firm's stands at the Exhibition. Naturally, as an English chemist, Mr. Evans does not care to see his name in any way associated with an article of this kind, nor is he responsible for it. He has his opinion concerning taxing oversea medicinal spirituous products; he knows his own mind on the subject, and speaks it, but it certainly was distasteful to him to read the "News" editor's effort, especially the reference to the "bad cheap article from England." In a letter to the "South African News," dated December 5, Mr. Evans says:

SIR,—With reference to your leader *re* Tinctures in this morning's issue I would like to point out what I consider to be a very serious error.

You state that "As usual, the Colonial consumer is slow to help the Colonial producer, and tends to prefer the bad cheap article from England to the good but less cheap article made here." The wholesale classification of spirituous preparations made in England as being bad is, to say the least, not just. Anybody with any knowledge of the trade, whether favourable to the importation of tinctures or otherwise, will admit that the spirituous preparations manufactured in England are inferior to none; in fact, you will find that as a rule British preparations command a better price than those manufactured on the Continent. As one of a very large number of English chemists in this Colony, I trust you will withdraw this stigma, which, to say the least, is not deserved by the English manufacturer.

Yours faithfully,

H. EVANS.

To this the Editor appends the following apologetic explanation:

We had no intention of referring to all English-made tinctures as inferior to those made here, or anywhere else. We were only speaking of the cases mentioned by Mr. Evans to the Select Committee, where the Colonial manufacturer uses spirits of wine and the English manufacturer uses spirit distilled from potatoes, etc. We should be the last to wish to minimise the unquestionable excellence of English manufactures, not only for sentimental reasons, but also because this is essential to our argument that our Customs revenue should be collected in such a way as to protect the Colonial manufacturers.

The credit for forcing the hands of the Cape and Orangia Governments rests with the Transvaal and Natal trades; the former through the Transvaal Chemists' and Druggists' Association, with Mr. Skinn, the Secretary, at the helm; the latter with Mr. Frank Turner as the source of information and opposition. The Natal Government had stated some years back, when the Union Tariff was before them, that the spirit clause would not apply to medicines, and Mr. Turner used this decision with effect on his own Government. At the Cape the opposition was conducted in a very half-hearted manner. Not that every retailer

was not against the idea, but the Pharmaceutical Society of Cape Colony is not so well managed as it might be, and it might very well take a leaf out of the T.C.D.A. book, since their work against this taxation was conducted in a manner that suggested force and dignity, such as one is glad to see among our Colonial *conféres*. To the trade of the two Colonies mentioned the credit must go for having postponed the spirit-duty. It will come yet—of that there is little doubt—but not till after the next Customs Conference; and it will then be for the South African trade to see that the duty is kept as low as possible.

Natal.

THE TREND OF TRADE.—The commercial conditions of the Colony are showing marked improvement. Although November is a short month, the returns are much in advance of October—in fact, nearly a quarter of a million. The total imports for November amounted to 1,048,255*l.*, as compared with 1,134,042*l.* for the corresponding month of last year, whereas the imports for October of this year only totalled 805,734*l.*—a very gratifying comparison in favour of November. Exports show an increase of nearly 20,000*l.* on the figures for November, 1903. The general feeling here is that the cloud of depression is being gradually dispelled, and that the New Year will herald an all-round improvement in every branch of commercial life, with the prospect of a much brighter year of business during 1905.

THE CONTROLLER OF EXCISE supplies the following return of methylated and rectified spirit manufactured and disposed of in Natal during the month of November, 1904:

Methylated Spirit.—Manufactured, 2,703 proof gals. Disposal of methylated spirit: From warehouses for consumption in Natal, 420 gals.; from distilleries for consumption in Natal, 3,769 gals.; for export overberg, 2,884 gals.—totals, 4,189 and 2,884 gals.

Disposal of Rectified and Compound Spirit.—Rectified spirit for chemists and druggists, 91 gals.; rectified spirit for Government laboratory, 34 gals.; compounded spirit for home consumption, 1,565 gals.—total, 1,690 gals.

Transvaal.

During the nine months ended September 30, 1904, the value of imports of drugs and chemicals into the Transvaal amounted to 341,000*l.*, compared with 410,000*l.* for the corresponding period of 1903. Photographic materials valued at 16,000*l.* were imported, against 26,000*l.* in 1903.

CUSTOMS UNION.—At a meeting of the shareholders of the Transvaal Soap Co., Ltd., held at Johannesburg on November 23, the Chairman (Mr. D. Holt) in the course of his speech, referred to the competition of the coast manufacturers, which were able to send soap to Johannesburg at a railway charge of 3*s.* 8*d.* per 100 lbs., while their company had to pay on the ingredients employed in soap-manufacture the following rates: Caustic soda, 5*s.* 9*d.*; shooks, 4*s.* 5*d.*; coconut oil, 5*s.* 9*d.*; resin, 7*s.* 8*d.*; silicate of soda, 4*s.* 5*d.*; and tallow (when imported), 7*s.* 8*d.* Under such circumstances it was impossible to carry on a flourishing business. Such a state of affairs would undoubtedly kill all factories of a similar nature in the country. He, with others interested in Transvaal manufacturers, had opposed the Customs Union, foreseeing that it would drive all factories out of the country, and it remained a fact that Johannesburg, from the mercantile point of view, had not gone ahead since the formation of the Customs Union. According to the *ad valorem* tariff, there was levied 7½ per cent. on English and 9 per cent. on foreign goods. When they recalled the fact that the railways were making a profit of one and a half million sterling, and compared that with the two millions of Customs-duties collected, they saw that the Customs Union really meant 12 per cent. on English goods and 15½ per cent. on foreign goods. In reply to shareholders, Mr. Holt said that the G.M. of Railways had been approached with reference to the charges on raw materials. In the case of resin, for instance, he had informed them that the matter was not worth consideration, as in six months only 2*l.* had been paid as freight for that article. He did not know who the G.M.'s informant was, but on one parcel imported during that period they had paid 43*l.* With reference to the foregoing a reply appeared subsequently from the Natal soap-manufacturers, denying the disadvantage of the Natal rates to Transvaal manufacturers or that Natal is responsible for the smallness of the Transvaal Company's trade.

Orange River Colony.

A QUARTER'S TRADE.—Among the articles imported into the Colony during the quarter ending September 30, 1904, were the following, the figures in parentheses being those of the corresponding quarter of 1903: Drugs and chemicals, 5,624*l.* (5,689*l.*); extracts and essences, 384*l.* (413*l.*); medicinal preparations, 3,388*l.* (3,217*l.*); essential and perfumed oils, 25*l.* (38*l.*); all other descriptions of oils, 5,531 gals. (4,476 gals.); paints, colours, turpentine, and varnish, 2,725*l.* (3,119*l.*); perfumery, cosmetics, powders, and toilet-soaps, 913*l.* (860*l.*); common soap, 4,270*l.* (3,744*l.*); spices and turmeric, 199*l.* (251*l.*); imported spirits, 10,249 gals. (8,604 gals.); spirits manufactured in Cape Colony, 5,911 gals. (4,249 gals.); vinegar, 235*l.* (134*l.*).

American Notes.

(From our Correspondent.)

AMALGAMATION.—A "Laffan" telegram from Philadelphia states that the consolidation of Powers & Weightman and Rosengarten & Sons, hitherto the bitterest rivals, has been effected by Mrs. Walker, the late Mr. William Weightman's daughter. The consolidation is said to effect a practical monopoly in the United States of sulphate of quinine and morphine.

BROUGHT TO REASON.—The recalcitrant druggists in Central New York State have been reasoned with by their brethren in New York City, and the decision has been reached to abandon the threatened attempt to bring about a repeal of the graduation pre-requisite law demanding a college degree in pharmacy from every proprietor. This decision is very gratifying to all friends of progressive pharmacy, not only in New York State, but elsewhere throughout the country.

A BOSTON FINANCIER, Mr. T. W. Lawson, is making a sensational public attack on the Amalgamated Copper Co. and other securities held by the gigantic Standard Oil Trust. An "Amalgamated" shareholder, Mr. Henry Wellington Wack, has commenced proceedings against Lawson for disseminating false information. Mr. Wack will be remembered as until recently the managing director in London of A. J. White, Ltd., the company manufacturing the "Mother Seigel" preparations.

TAKAMINE TAKES ALL.—The Japanese Government buildings at the Louisiana Purchase Exposition were among the most unique and attractive at the World's Fair which has just drawn to a close in St. Louis. It is now interesting to state that all three of the buildings have been donated by the Japanese Government to Dr. Jokichi Takamine. Dr. Takamine is well known as the Japanese chemist who discovered takadiastase and adrenalin. He is a conspicuous member of the scientific staff of Parke, Davis & Co., and he has a large laboratory in New York City.

SHORTER HOURS.—A recent ruling in the Supreme Court of New York State will seriously affect the "shorter hours movement" among the chemists' assistants of America. The Court decided that the eight-hour labour law affecting New York City was unconstitutional, on the ground that it took away a man's property without due process of law, and on the further ground that the particular statute, in affecting New York City only, represented an infringement on the part of the State Legislature upon the rights of the municipality.

HOW IT PAYS.—One of the ways in which "substitution" articles are worked was made evident recently in New York City. A certain newspaper of the sensational type approached a number of druggists with the statement that in the Sunday edition a very elaborate write-up would appear against the evils of substitution. It was proposed to mention specifically those leading druggists in the city who are *not* guilty of the practice; and every druggist approached by the newspaper was given the opportunity of having his name printed in this list of the elect for a consideration—say, \$7.50! This was one way of buying a reputation, or, rather, of saving a reputation, which the New York druggists did not appreciate. The newspaper soon found out that it had better abandon a blackmailing scheme of this kind. The article did not appear!

Personalities.

ALDERMAN WILLIAM MERRY, J.P., chemist and druggist, Ilkeston, was, while on his duties as Registrar, injured in a trap accident at Kimberley last week.

MR. WILLIAM MARSON, chemist and druggist, of J. Marson & Son, chemists, Stafford, has been placed on the Commission of Peace for the borough of Stafford. Mr. Marson has been a member of the Stafford Town Council since 1894, and for two years has been Chairman of the Public Health Committee.

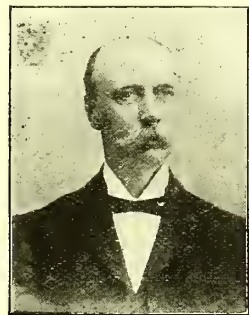
MR. A. MARSH has been appointed manager to Messrs. Butts & Co., chemists, Yokohama. Previous to going out to Japan in 1897 Mr. Marsh served some time as junior assistant with Mr. J. G. Atkinson, of Upper Norwood, S.E., and with Mr. W. Ive, Gloucester Road, South Kensington, and as senior with Messrs. Aplin & Co., of Chislehurst. Mr. Marsh has made many friends during his eight years' residence in Yokohama.

THE late Mr. Glaisyer, writes a correspondent, keenly enjoyed the work which fell to him as solicitor to the Chemists' Trade Association, but he was always singularly modest in regard to his participation in it. Once I congratulated him on one of his victories, and he at once turned the conversation to the case at Leamington in which the Pharmaceutical Council sued a widow lady who had carried on her deceased husband's business longer than they thought she should have done. Mr. Glaisyer's firm was engaged for the defence, but he could not attend the court when the case came on, and his partner, Mr. Porter, took his place. I never saw Mr. Glaisyer so delighted over any event as he was with Mr. Porter's victory. It seems curious now that before that case everybody had the fixed idea that the executor's right reserved by Section 16 of the Pharmacy Act is only a temporary one. In the London and Provincial Association action the Lord Chief Justice remarked, in reference to an argument raised on this point, "The widow will not be entitled to carry on her deceased husband's business longer than is necessary for winding up the business"; and that was assumed to be a reasonable construction until the Leamington Judge said he could find no such limitation in the statute. Then we all saw that there was none.

THE late Mr. John Storer Radford, of Nottingham, was during a period of his life on the staff of Messrs. Hooper & Co., 24 Great Russell Street, W.C., and we are indebted to Mr. William Warren for the portrait here reproduced, and the following interesting appreciation:

Recorded in your last issue was the sad death of Mr. J. Radford, who was an old friend of mine. In an article entitled "An Historic Pharmacy," published in your

Winter Issue two years ago, it was my privilege to speak of the loyalty with which Mr. Radford assisted me in the difficult task of following Mr. Hooper. I did not say there, however, that he had reasonable hopes of securing the business himself. He had spent seven years as an assistant in it, and he had all the ability and charm of manner to have made it a success, but monetary difficulties could not be overcome. It was with natural feelings of disappointment that he had to serve another, but he conquered them, and no one could have more thoroughly and loyally helped me to succeed in a difficult task



than he did. He was most capable, energetic, and much liked, and with his companionship my period of initiation was most enjoyable.

Those were the days of late closing and hard work in gas-poisoned atmospheres, and the assistant of that time never looked for more than one night a week off duty. Those years of arduous business-hours, and still later hours spent in studying for and passing the Minor and Major examinations, had undermined his constitution, and before many months had passed with me he developed lung-troubles which necessitated a sea-voyage. He went to Australia, and readily made himself at home on a sheep-run there, and the open-air life did wonders for him. Versatile and good company as he was, he made himself popular

among his comrades, and it seems now a great pity he did not follow that open-air life longer. But with returning health he resumed his pharmaceutical calling in Melbourne, and after a time returned to his native city, Nottingham.

There are few but would admit that the calling of a pharmacist is a wearing one; to a man of his energetic temperament and active brain it must have been so. He was one of those men, well informed, congenial, and bound to have lots of friends, and he would not spare himself to give less than his best; but like so many with the nervous temperament, physical weakness was not discovered until it was too late.

Abroad and at home he had friends. He leaves behind him aged and sorrowing parents, and a few lines of kindly reminiscence in your widely-read journal may be acceptable to these.

MR. MARCUS SPURWAY, of Spurway et Cie., Cannes and London, and Mr. B. M. Winkel, of Oowana, Ltd., travelled together from London by the London, Boulogne and Paris express which collided last week. Both escaped injury, Mr. Spurway having at Boulogne taken another train for the South. Mr. Winkel proceeded to Paris, but fortunately escaped injury, and helped to assist the less fortunate. Mr. Winkel describes the scene as most heartrending, the confusion which prevailed being indescribable.

On December 27, at the Freemasons' Hall, Gandy Street, Exeter, Bro. W. H. Dalgleish, S.W. (for many years manager to Messrs. James Townsend & Sons, chemists' printers, of London and Exeter) was installed W.M. of St. John the Baptist Lodge, No. 39, Exeter. The W.M. appointed Bro. Henry J. Dalgleish (who recently retired as one of the representatives of the well-known firm of Ford, Shapland & Co., label-printers, London) his senior warden, so that there is rather the unique position of two brothers being simultaneously the chief officers of the same lodge.

Recent Wills.

ALLINGHAM.—Mr. Herbert W. Allingham, F.R.C.S., who died on his way to Egypt on November 4, left estate sworn at 41,042l. 17s. 6d., of which 34,276l. 7s. 2d. is net personality. He left 10,000l. to his brother, Mr. Arthur Fairlie Allingham, 10,000l. and furniture for the benefit of Minnie Krebs, and, subject to other bequests to friends and servants, his residuary estate to his said brother, his sisters, and his niece.

DRAFER.—The late Mr. Henry Foulger Draper, of Wave-ney House, Chippenham, chemist and druggist, who died on June 25, has left a gross estate valued at 522l. 12s. 10d., including net personality 457l. 9s. His widow, Mrs. Georgina Maria Draper, is sole executrix.

HASLOP.—The late Mr. William Haslop, chemist and druggist, of Waterloo Road, Great Marton, Blackpool, who died on September 25, left estate valued at 5,721l. gross, and 5,392l. net.

HAWLEY.—The late Mr. Alfred Hawley, of The Knowle, Hampstead, and of Messrs. Henry & Alfred Hawley, 33 Lime Street, E.C., Australian merchants and drug exporters, who died intestate, has left a gross estate of 65,892l.

KYRKE-SMITH.—The late Mr. Henry Kyrke Kyrke-Smith, of Kirkstone, Waterloo, and of Wright, Crossley & Co., Liverpool, rice and spice millers, who died at the age of fifty-three, has left estate of the value of 26,113l.

LEAT.—The will of the late Mr. Frederick Charles Leat, chemist and druggist, of 76 Hartfield Road, Wimbledon, and of Sunny Ray, Ringwood, who died on July 17, has been proved at the Principal Probate Court by his sister, Miss Cecilia Leat, the sole executrix. The gross amount of the estate is 1,892l. 0s. 4d., and the net personality 1,863l. 4s. 2d.

ROBERTS.—The will of the late Mr. Joseph Roberts, chemist and druggist, of Stella House, Blaydon, has been proved at 10,387l., including net personality 1,102l.

SMITH.—The will of the late Mr. Thomas James Smith, chemist and druggist, of 29 Queen's Road, Jesmond, Newcastle-on-Tyne, who died on October 7, has been proved at 8,678l. 16s. 8d. gross, the net personality being 7,503l. 18s. 2d. All his household effects are left to his widow, and the remainder of the estate in trust for her for life. At her death his unmarried daughters are to have the use of his house, and the ultimate residue of the estate is to be divided between his daughters.

TOTTE.—The late Mr. Henry John Tottle, chemist and druggist, of Epsom, who died on July 17, has by his will named Mrs. Olive Tottle, his widow, and Mr. Joseph Alfred Tottle, of 104 Ritherton Road, Upper Tooting, to be his executors. Deceased left estate valued at 1,141l. 4s. 7d. gross, and 656l. 4s. 4d. net.

Legal Reports.

County Court Cases.

A WEEK'S NOTICE.

At the Clerkenwell County Court on December 22, before Judge Edge, James Sutters, clerk, sued Messrs. May, Roberts & Co., 9 Clerkenwell Road, for 2*l.* as wages in lieu of notice.

Plaintiff said he was employed by defendants as an entering clerk at 1*l.* per week. One day he was suffering from toothache, and stayed away from business. He received a letter the same evening saying his services would not be further required. In cross-examination he denied that he attended a race-meeting on the day of his absence from business. He admitted that he had used defendants' telephone for betting. After hearing other evidence Judge Edge said: I think plaintiff ought to be paid one week's wages, and shall give him a verdict for 1*l.* If defendants suspected him of betting, they could have given him notice.

Plaintiff: They all do it.

Mr. Roberts: I should like to know the names of our clerks who do it.

The Judge: I have very little doubt about it. Unfortunately it has got such a hold on the country that everybody bets—except you and I. (Laughter.)

A MONTH'S NOTICE.

At the Marylebone County Court on December 23, before Judge Stonor, Edwin Arthur Fippard, chemist's assistant, sought to recover 8*l.* from Mr. John Atkins, chemist and druggist, 109A Queen's Road, Bayswater, W., in respect of a month's salary in lieu of notice.

Plaintiff's solicitor stated that his client entered the defendant's service, as an assistant, in April last, at a salary of 2*l.* a week. Three days afterwards defendant asked plaintiff to find another berth within about a week or a fortnight. He (defendant) wished to engage a younger man at a smaller salary, as the business was not paying. The plaintiff said he would endeavour to obtain a new situation, but that, in the event of his failing to do so, he would expect a month's notice or a month's money, according to the usual custom of the trade. On the following Saturday, on arriving home, plaintiff found two letters awaiting him, one relating to a situation at Surbiton, and the other to a situation at Southend. On the Monday morning plaintiff went to Southend to see about a new berth, after sending a letter, followed by a telegram, to the defendant, explaining his absence. Next morning defendant refused to let plaintiff again start his duties at the shop, and declined to pay him any salary in lieu of notice. The plaintiff, in his evidence, said he explained to the defendant that he might require a little time off in order to find another berth, and the defendant replied that he could have any time that might be necessary for replying to advertisements. By this he understood that he would be allowed time in which to reply personally to advertisements.

In cross-examination the plaintiff said he understood that the defendant, on the Monday morning, had to break open his shop-door because he had not the keys; but he (plaintiff) denied that it was a part of his duty to look after the keys and to open the shop.

The defendant stated that the plaintiff agreed to open the shop every morning, and during the week he was there he did so. When he told plaintiff he would not suit, witness promised him that if he could obtain another situation before the month's notice was up, he (witness) would release him. He had no recollection of anything being said about answering advertisements; but he certainly did not give the plaintiff permission to stay away from work.

In cross-examination the defendant admitted that at the time he dismissed the plaintiff the business was not paying; but he did not recollect saying that he wanted an assistant at a smaller salary.

The Judge said he did not think the action of the plaintiff demanded the forfeiture of his wages; for, as far as his Honour could see, there was no intention on the part of the plaintiff to act in any wrong way. There appeared

to have been some conversation about finding a new situation, but the plaintiff might have used a little more discretion; and in consideration of that fact he only allowed the plaintiff 4*l.*, without costs.

Bankruptcies and Failures.

Re GEORGE ARTHUR CROWTHER, 96 Smedley Road, Cheetam, Manchester, late 358 Worsley Road, Winton, Patricroft, Lancashire, Drug and Drysaltery Dealer, etc.—The public examination took place at Salford, on December 19, before Mr. Registrar Addie. Particulars of the failure were given in the *C. & D.*, December 10, page 944. The debtor stated (in addition to the financial details already given) that he suffered from valvular disease of the heart all the time he was in business, and had on many occasions during the last two years been compelled to close his shop in consequence. The examination was adjourned, and the debtor was ordered, in the meantime, to file an amended deficiency and other accounts.

Re JOHN EDMUNDS, 3 Tower Bridge Road, S.E., and 59 Falmouth Road, S.E., Chemist and Druggist.—The following are creditors: Briedenbach & Co., London (29*l.*); Baiss Bros. & Stevenson, Ltd., London (19*l.*); Barclay & Sons, Ltd., London (79*l.*); Crown Perfumery Co., London (13*l.*); Cleaver & Sons, London (11*l.*); Camwal, Ltd., London (10*l.*); Davy, Hill & Co., London (11*l.*); Hodgkinson, Prestons & King, London (14*l.*); Houghtons, Ltd., London (15*l.*); Harker, Stagg & Morgan, Ltd., London (21*l.*); Idris, Ltd., London (25*l.*); W. Lane, London (22*l.*); Reimann & Sons, London (10*l.*); Sutton & Co., London (236*l.*); Sandom, Kirsay & Co., London (16*l.*); J. Timpson & Co., Ltd., London (14*l.*); Goldhill & Sons, London (10*l.*); Kerfoot & Co., Ashton-under-Lyne (21*l.*); Wyleys, Ltd., Coventry (14*l.*); T. Howard Lloyd & Co., Leicester (10*l.*); H. J. Haberfield, Luton (100*l.*); J. Denoual, New Cross (14*l.*); Rev. Dr. Dawson, Worthing (150*l.*). *Partly secured creditor*, Ridgeley, Dalston (270*l.*).

Re HENRY HERBERT HUSBANDS, residing at 3 Park Road, and trading at 173 Willoughby Street, Lenton, Nottingham, Chemist.—A meeting of creditors was held at the offices of the Nottingham Official Receiver on December 28. The Deputy Official Receiver (Mr. E. Smith) presided, but there was not a quorum present, and the Official Receiver is to act as trustee. Mr. E. B. Stocker appeared on behalf of the debtor, whose statement of affairs showed liabilities 509*l.* 10*s.* 4*d.*, there being forty-three unsecured creditors for this amount. The total assets were returned as 140*l.* 15*s.* 1*d.*, principally made up of stock-in-trade, trade-utensils, etc., 81*l.*, and furniture 53*l.* 5*s.* 6*d.* Of the book-debts 4*l.* 14*s.* 1*d.*, represented those classed as good, and the bad and doubtful debts were estimated to produce 2*s.* 6*d.* After deducting six creditors for distrainable rent, and preferential charges to the amount of 25*l.* 7*s.* 11*d.*, the net assets were 115*l.* 7*s.* 2*d.*, the deficiency being 394*l.* 3*s.* 2*d.* Debtor commenced business on July 13, 1900, with 200*l.* borrowed money, 120*l.* of which is still owing. He attributed insolvency to loss of trade through the closing by fire of a large factory in the vicinity, deviation of traffic by electric trams, and heavy expenses. His unsecured indebtedness, with the exception of 157*l.* 10*s.* for borrowed money and 41*l.* bank overdraft, is mainly due to trade creditors. The public examination will take place at the February sitting of the Court.

Gazette.

Partnership Dissolved.

Potter, H., and Dobson, A., Ilkeston, Derbyshire, physicians and surgeons.

The Bankruptcy Acts, 1883 and 1890.

RECEIVING ORDER.

Dodd, Richard Jefferson, Tottenham Court Road, W., Edgware Road, W., Hampstead Road, N.W., Judd Street, W.C., Euston Road, W.C., and Gray's Inn Road, W.C., chemist and druggist.

New Companies & Company News.

GERMANS, LTD.—Capital 1,500*l.*, in 1*l.* shares. Objects: To acquire the business of the Bootle Ale, Stout, and Mineral-water Co., of Irlam Road, Bootle, and Alfred German & Co., of Pleasant View, Bootle.

BONVALEE ET CIE., LTD.—Capital 5,000*l.*, in 1*l.* shares (1,000 preference). Objects: To acquire the business of manufacturers of soaps, perfumes, and scents carried on by

Bonvallee, Renaud et Cie., to adopt an agreement with F. R. Cullingford and Mrs. M. G. B. Cullingford, and to carry on the said business and that of powder-manufacturers, chemists, druggists, etc. No initial public issue. Registered without articles of association.

G. FAIRLEY & SON, LTD.—Capital 2,000*l.*, in 1*l.* shares. Objects: To acquire the business carried on by J. Fairley and C. E. Fairley at 45 Sans Street, Sunderland, and to carry on the business of ship-store merchants, ship-chandlers, sailmakers, chemists, druggists' sundriesmen, etc. C. E. Fairley, chemist and druggist, of Sunderland, is a subscriber for 150 shares. No initial public issue. The first directors are J. Fairley and C. E. Fairley (permanent managing directors; special qualification 100 shares). Registered office, 45 Sans Street, Sunderland.

SCHNEIDER & CO., LTD.—Capital 1,500*l.*, in 1*l.* shares. Objects: To adopt an agreement with E. Goldschmidt and E. Schneider, to carry on the business of dealers in cement (made in accordance with the patents referred to in the said agreement), dealers in all kinds of dental requisites and goods sold by chemists and druggists, dealers in photographic appliances, etc. The first subscribers are: E. Goldschmidt, 9 Noble Street, London, agent; E. Schneider 136 Fellows Road, Hampstead, merchant; J. Jacoby, 17 Crediton Road, West Hampstead, merchant; E. Derenberg, 6a Austin Friars, E.C., banker; F. Goldschmidt, 23 Adamson Road, South Hampstead, N.W., clerk; H. V. H. Ascher, Prager Strasse 29, Berlin, W., surgeon-dentist; P. Kloeper, Regensburger Strasse 16, Berlin, W., merchant. No initial public issue. The first directors are E. Goldschmidt, E. Schneider (manager), and J. Jacoby. Qualification 50*l.* Remuneration of manager as fixed by the board. Registered office, 9 Noble Street, London.

PARKE'S DRUG-STORES, LTD.—The report and accounts for the year ended September 30 state that two new branches had been opened during the year. The sum of 428*l.* required for depreciation of leases has been met out of revenue, as well as 576*l.* expended on repairs and renewals; 753*l.* 14*s.* 6*d.* has been appropriated to the fixture, depreciation, and reserve fund, and 300*l.* added to stock reserve fund, the reserve funds (general, stock and fixtures, etc.) amounting in all to 10,434*l.* The available net balance for the year was 5,277*l.*, out of which were paid interim dividends on ordinary and preference shares, both at the rate of 6 per cent. per annum. The balance (2,239*l.* 16*s.* 9*d.*) has been utilised to pay the final dividend on the preference shares (amounting to 1,086*l.* 16*s.* 6*d.*), and a final dividend of 3 per cent. (less income-tax) is now recommended on the ordinary shares, making 6 per cent. for the year. The balance of 253*l.* is to be carried forward. In the profit-and-loss account the managerial and general expenses are stated at 3,190*l.* The "profit on trading" during the year is placed at 8,364*l.* (or about 270*l.* per shop). In the balance-sheet 12,993*l.* is allowed for sundry creditors and bills payable; sundry debtors and debit balances 966*l.* 14*s.* 2*d.*; stock-in-trade at warehouse, laboratory, and thirty-one branches, 35,121*l.*; goodwill, 12,150*l.* 12*s.* 3*d.*; leases investment account, 9,438*l.*; plant, fixtures at warehouses, branches, etc., 30,645*l.* The directors who retire, but offer themselves for re-election, are Messrs. Joseph F. Fuerst and David Russell.

British Optical Association.

A SPECIAL general meeting of the members of this Association was held at the Victoria Hotel, Manchester, on December 22, to consider the recommendations of the Council as to promoting an Opticians Bill. The President (Mr. M. W. Dunscombe, Bristol) occupied the chair, and among those present were Mr. S. Cowan (Manchester), Mr. John Allan (Blackburn), Mr. R. Sutcliffe, Mr. A. Cowan (Manchester), Mr. Lionel Laurance, Mr. Gray, and Mr. Jameson (London), Mr. Atha (Liverpool), Mr. Bennett (Stockport), and Mr. John H. Sutcliffe (Secretary).

The President explained the steps that have already been taken by the Council, and Mr. Sutcliffe mentioned that the guarantee fund has already reached 1,000*l.* The President said there were signs of certain differences of opinion among some members of the craft as to the proper way of proceeding with the promotion of the new Bill. The subsequent speakers emphasised the injustice which would be done by the Medical Acts Amendment Bill to optologists, who would be reduced to mere vendors of spectacles over the counter. A resolution stating that the Association considers it advisable in the interests of the

public and the optical profession that a Bill to define and regulate the practice of optology be presented in the next Session of Parliament was then passed. Another resolution was as follows:

That this Association invite representatives of all interested societies and persons to form a committee to draft and promote a Bill during the next Session of Parliament.

Mr. Laurance, whilst giving the British Optical Association credit for what they have done in initiating the movement, said he considered that the invitation to the various societies should be issued by two or three persons not actively associated with any one optical body. Unity within the trade, he pointed out, is absolutely necessary if there is to be the slightest chance of success, either in opposition to the Medical Acts Amendment Bill or with a Bill of their own.

Mr. Bennett (Stockport) spoke in a like strain, and eventually, after a long discussion, it was agreed that the President, the Secretary, and Messrs. Laurance, Gray, Bennett, Kidd, S. Cowan, R. Sutcliffe, and Allan should be appointed a committee to meet the following morning and settle the matter and proceed on such lines as might be agreed upon.

The special committee met on December 23 at ten o'clock, and were engaged for some hours in formulating a scheme of procedure.

At 1 P.M. an excellent luncheon was served at the hotel. Mr. Dunscombe in the chair, when, after the toast of "The King" had been drunk, framed illuminated addresses were presented to Mr. R. Sutcliffe and Mr. S. Cowan, the founders of the B.O.A., in recognition of their past services.

New Books.

Brundage, A. H. *Manual of Toxicology*. 4th edit. 12mo. 8*s.* 6*d.* net. (Baillière.)

Carruthers, T. *Urine-examination made Easy*. 8vo. 1*s.* 6*d.* net. (Churchill.)

Family Practice; or, Simple Directions in Homœopathic Domestic Medicine. 6½×3½. Pp. 276. 2*s.* 6*d.* (E. Gould & Son, Ltd.) [This is a companion volume to "The Principal Uses of the Sixteen Most Important Homœopathic Medicines," and is compiled from the standard medical works of Jahr, Hull, Hempel, Bryant, Hale, Hughes, and other well-known homœopathic practitioners. The first part treats of hygiene, the most common causes of disease, suspended animation, the preparation of poultices, disinfectants, and sick-room foods. Part 2 deals with specific diseases and their treatment. The book will prove a useful one for chemists' sale.]

Johnson, W. H. *Cultivation and Preparation of Para Rubber*. 8½×5½. Pp. 112. 7*s.* 6*d.* net. (Lockwood.)

Linton, W. R. *An Account of the British Hieracia*. Pp. xvi+96. Demy 8vo. 4*s.* net. (West, Newman & Co., 54 Hatten Garden.)

Mellor, J. W. *Chemical Statics and Dynamics*. 7½×4½. Pp. xiv+528. 7*s.* 6*d.* (Longmans, Green & Co.) [The subjects dealt with are homogeneous, side, opposing, and consecutive reactions; the beginning of a chemical reaction, heterogeneous reactions; equilibrium and dissociation; electrolytic dissociation, catalysis, fermentation, influence of temperature and pressure on chemical reactions and explosions. In the introductory chapter are treated the advances in knowledge in the subject from the earliest times.]

Poynting, J. H., and Thomson, J. J. *Text-book of Physics*. Vol. 3. Heat. Illus. 9½×6½. Pp. 370. 15*s.* (Griffin.)

Prenderville, A. de. *Ethyl Chloride in Surgical and Dental Practice*. 8vo. Swd. 1*s.* (H. J. Glaisher.)

Powell, Wm. M. *Essentials of Diseases of Children*. Cr. 8vo. 4*s.* net. (Kimpton.)

Rosenbach, O. *Physician versus Bacteriologist*. Cr. 8vo. 6*s.* net. (Funk & W.)

Rutherford, E. *Succession of Changes in Radio-active Bodies*. 4to. Pp. 50. 3*s.* (Dulau.)

Scouller, J. *Practical Bookkeeping*. 6th edit. 7½×4½. Pp. 108. 1*s.* net. (Simpkin.)

Ships—Dangerous Goods and Explosives in, Carriage of, Instructions Relating to. Revised and consolidated. 3d. (Eyre & S.)

Walker, J. *Analytical Theory of Light*. 10½×6½. Pp. 432. 15*s.* net. (C. J. Clay.)

Practical Notes and Formulae.

WEED-KILLING.

"If you have weeds in the gravel paths of your garden, water them with petroleum, and they will soon disappear," says the "Agriculture Moderne."

KERATIN SOLUTION.

Mr. SCHÖPP, in the "Journal de Pharmacie d'Anvers," gives the following method of preparing keratin as a pill-coating. Professor Umma some twenty years ago proposed that pills composed of substances from which intestinal effects only were desired should be coated with keratin so that the pills should not dissolve until they reached the bowels. Mr. Schöpp in 1885 worked out a method which has been generally used on the Continent, but that pharmacist now publishes an improvement on his first process which may interest those few dispensers who have occasion to prepare keratin for pill-coating. The method may be divided into two parts, the first having reference to the preparation of the keratin and the second to the making of the solution. Ten parts of rasped feather stems are placed in a flask with a mixture of 10 parts of ether and 5 parts of 96-per-cent. alcohol and macerated for eight days with occasional agitation. The liquid is decanted, and the residue carefully washed on a filter first with alcohol and then with lukewarm distilled water. The raspings are next digested for a day with a solution of pepsin, made of 1 part of pepsin in 1,000 parts of water acidulated with six parts of 25-per-cent. hydrochloric acid, at 40°C. The liquid is then decanted, and the residue washed until the washings cease to give the chloride reaction, after which the purified horn is dried. The solution of keratin is made from this purified substance by placing it in an Erlenmeyer flask, fitted with a reflux condenser, with 100 parts of glacial acetic acid. After twenty-four to thirty hours' gentle boiling filter through asbestos or glass wool. Next estimate the proportion of keratin in solution by evaporating a small portion and drying to constant weight and by means of additional acetic acid or evaporation make the solution 1 in 15. This solution can be evaporated on a water-bath to a syrupy consistence and sealed on glass at a temperature of 50°C. and used for making an alkaline solution of keratin by dissolving in a mixture of equal parts of liquid ammonia and dilute alcohol in the proportion of 1 to 15. It should be noted that in the evaporation a slight decomposition of keratin results, so that the final solution is not quite complete. The dispenser has thus at his disposal an acid and an alkaline solution of keratin, and judges from the composition of the pills which is the better to use. The acid solution, for instance, is more suitable for pills containing salts of silver, gold, and mercury, chloride of iron, arsenic, salicylic acid, nautonin, tannin, and thymol; while the alkaline solution is better for pancreatin, trypsin, sulphate of iron, and alkalies. For some drugs, such as naphthalin, it is immaterial which solution is used. The method of coating recommended by Mr. Schöpp is to roll the pills in a powder of 5 parts of cocoa-butter and 3 parts of white bole, then in graphite, and finally 12 to 15 successive coatings of keratin solution.

DEPILATORY.

The following modification of the well-known barium-sulphide depilatory is taken from the "Bulletin des Sciences Pharmacologiques":

Barium sulphide	...	...	25 parts
Powdered soap	...	...	5 parts.
French chalk	...	...	35 parts.
Starch powder	...	...	35 parts.
Benzaldehyde to make	...	...	120 parts.

One part of the preparation is mixed with 3 parts of water, the mixture applied to the part and washed off after five minutes.

I. Q. & S. ELIXIR.

Ferri quin. cit.	...	...	5iv. gr. xvj.
Strychnine	...	...	gr. iv.
Acidi citrici	...	...	gr. x.
Elix. aromat. U.S. ad	...	...	3xxxij.

WARBURG'S TINCTURE POWDER.

(Without Aloes).

Pulv. rhei	...	...	gr. c.
Pulv. angelicæ	...	...	gr. c.
Pulv. opii	...	...	gr. x.
Pulv. inulæ	...	...	gr. l.
Pulv. croci sativæ	...	...	gr. l.
Pulv. fœniculi	...	...	gr. l.
Pulv. gentianæ	...	...	gr. lxxv.
Pulv. camphoræ	...	...	gr. xxv.
Pulv. capsici	...	...	gr. xxv.
Pulv. quinin. sulph.	...	...	gr. cc.

Four grains of this equals one teaspoonful of Warburg's tincture *without aloes*. The tincture contains 4 grains of the above and $\frac{1}{4}$ grain of aloes in one teaspoonful, and both are kept in New York pharmacies mixed to fill capsules dry.

CHAP-SALVE.

Lanolini	...	...	5j.
Petrolati albi	...	...	3iij.
Glycerini	...	...	3iv.
Flor. camphoræ	...	...	3ss.

Melt the first two and add the camphor; when dissolved, place in a mortar, and while stirring add the glycerin.

FOOT-POWDER.

Potassium permanganato	...	13 parts
Alum	...	1 part
French chalk	...	50 parts
Zinc oxide	...	18 parts
Calcium hydrate	...	18 parts

This powder is used in cases of sweating feet. Each night a warm foot-bath of a 1-per-cent. solution of potassium permanganate is used.—*Medical Record*.

HUGENSCHEIDT'S DENTIFRICE.

Menthol	...	...	1 part.
Salol	...	...	8 parts.
Powdered soap	...	...	20 parts.
Calcium carbonate	...	...	20 parts.
Magnesium carbonate	...	...	60 parts.
Oil of peppermint	...	...	2 parts.

If desired 10 to 20 parts of powdered pumice may be added.—*Le Courrier Médical*.

George Wilson.

A READABLE article on George Wilson's "Compleat Course of Chymistry" appeared in a recent issue of "Chambers's Journal." George Wilson was a chemist who carried on business at the sign of Hermes Trismegistus, in Watling Street, London, at the time of the Great Plague and the Great Fire that followed. He was in business for over fifty years, and left behind him the above-mentioned book on chemistry, from which an excellent idea of his philosophical and chemical studies is obtainable. The details of the manufacture of honey-water taken from this work are given in "Pharmaceutical Formulas" (Vol. 1., page 178), as Wilson's formula is the basis of modern recipes. Wilson, like most of the chemists of his day, believed in the possibility of obtaining gold by chemical processes, and seems to have spent much time and patience in the search. Gold was used as the starting-point, the idea being to increase the quantity by much distillation and amalgamation. In the British Museum there is a list of medicines in the form of a broadsheet issued by Wilson in 1686 containing the following interesting notice:

To all Doctors of Physick, Apothecaries, Chirurgeons, and others studious of physick or curious in chemical operations. Though I here present you with a catalogue of such medicines as I have always ready prepared for your Occasions and faithfully elaborated according to the best Processes I could ever meet with, yet further to satisfy you I here offer to your service the conveniency and use of my Laboratory, if any of you shall at any time desire it, there to have any particular Process of your own experimented, paying for the coals and glasses and a Reasonable Recompence for the Use of my Furnaces. And at all times Free and Welcome access to see any of those Medicines you shall have of me prepared from the beginning to the compleating of the same; by which means you may the better be satisfied of their true and faithful Preparation and consequently of the goodness and purity of the Medicines I sell.

Business Changes.

MESSRS. VINES & FROM, chemists, have removed from No. 75 to new premises at No. 64 Aldersgate Street, E.C.

MR. R. STEVENS, chemist and druggist, has removed from 19 Wigmore Street, W., to No. 97 in the same thoroughfare.

MR. F. H. REED, chemist and druggist, has bought the business of Mr. C. Thornley, chemist and druggist, at High Street, Ilfracombe.

MR. F. COOPER, chemist and druggist, has recently taken over the business of Mr. H. Marshall, 4 Millman Terrace, Tottenham Lane, Hornsey, N.

MR. W. C. ROBERTS, chemist and druggist, has acquired the business at Stourport formerly carried on by Mr. W. J. Greensill, chemist and druggist.

THE business of Charles Southwell & Co., of Jacob Street, Dockhead, S.E., will be carried on in future by Mr. Charles E. Southwell, the surviving partner.

THE old-established business of Firminger & Co., sponge, brush, and chamois-leather merchants (which is a branch of the International Sponge Importers, Ltd.), has been removed to more commodious premises at 1 Victoria Warehouses, Mansell Street, E.

THE retail chemist's business lately carried on by Mr. Herbert Buckley, at Bridge Street, Lockwood, Huddersfield, has been purchased and will be carried on by Mr. J. B. Wood. Mr. Buckley will in future continue business in Huddersfield as an oil-merchant and drysalter only.

Births.

BALL.—On December 22, at Bridge Road, Itchen, near Southampton, the wife of Allan Ball, chemist and druggist, of a son.

HAYES.—At Argenteuil, near Paris, the wife of Charles Hayes (of the Pharmacie Anglaise des Champs-Élysées), of a son.

PINCKNEY.—At Bombay, on December 7, the wife of C. E. Pinckney, chemist, the Army and Navy Stores, of a son.

Marriage.

BAILEY—COX.—On December 26, at St. Matthew's, Gosport, Albert Edward Bailey, of Thornhill, Bitterne, to Christine Alice, daughter of Mr. Homersham Cox, and granddaughter of the late Alderman A. H. Cox, J.P., of Brighton.

Deaths.

BROMWICH.—On December 20, Mr. Thomas Bromwich, of 77 High Street, Croydon, aged thirty-nine.

BROWN.—At Hull, on December 18, Mr. Benjamin Brown, chemist and druggist, aged seventy-eight.

McCLELLAN.—At Wallasey, Cheshire, on December 17, Mr. Joseph McClellan, chemist and druggist, aged sixty-five.

MILLER.—At Pulteney Town, Wick, on Christmas Day, Mr. Kenneth Miller, chemist and druggist. Mr. Miller was one of the most highly esteemed men in the North of Scotland. He was a man of considerable culture, and ready with the pen when he had the time to spare from philanthropic work, which had his first care. He was apprenticed to the late Mr. George Nicol, and passed the Minor examination in 1873. He had records of pharmacy in the North of Scotland back to 1790, and it was his intention to contribute to these pages two articles on the subject—one from 1790 to 1850, and the other from 1850 until now. In April, 1903, Mr. Miller received from his fellow-townsmen a silver salver and purse of sovereigns "in recognition of his devoted and charitable attention to the healing of the sick during a long period of years." The Chairman on the

occasion said Mr. Miller's shop had been a kind of free hospital and dispensary.

TOMLIN.—At Church Street, Barnsley, on December 15, Mr. Albert Roberts Tomlin, chemist and druggist, aged fifty-four.

TURNELL.—On December 25, at the residence of his daughter, Mrs. H. B. Leighton, Mount View, Upper Albert Road, Sheffield, Mr. Joseph Turnell, chemist and druggist, 123 Charlotte Road, aged seventy-five.

Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. Dalton, Esq., C.B. Comptroller-General of Patents, Designs, and Trade-marks at the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C. within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," December 7, 1904.)

"MEQUIN"; for photographic chemicals. By J. J. Griffin & Sons, Ltd., 20 Sardinia Street, W.C. 267,414.

"BRINGUINE" ("Bring up" disclaimed); for chemicals. By Hughes, Treleaven & Co., 29 Irwell Chambers East, Fazackerby Street, Liverpool. 267,619.

"NUTROGEN"; for chemicals. By A. E. Angier, A. McF. Davis, and J. L. Ward, 32 Snow Hill, London, E.C. 267,629, 267,630, 267,631.

"MATOLIN"; for chemicals. By Sissons Brothers & Co., Ltd., Bankside, Sculcoates, Hull. 266,059.

"BETAZONE" ("Beta" disclaimed); for disinfectants. By D. Goodall & Co., Elswick Court Works, Newcastle-on-Tyne. 267,551.

Device of bell and 2-ton weight and "BELTON'S BUSY BEES"; for pills, etc. By E. R. Belton & Co., 47 Crewdson Road, Brixton, S.W.

"HOMOSAN" ("Homo" disclaimed); for medicines. By Nicolay & Co., 36 St. Andrew's Hill, London, E.C. 265,378.

"KAYUKA"; for a medicine. By Woolleys, Ltd., King Street Bridge, Blackburn. 266,380.

"MILLIONAIRE"; for chemicals. By T. C. Whinnerah, 16 Torrington Square, W.C. 266,786.

"PETROBROSE" ("Petro" disclaimed); for a medicinal preparation. By F. Gernat, Netherleigh, Station Road, Leigh-on-Sea, Essex. 266,811.

"ANODYNOL" ("Anodyne" disclaimed); for chemicals. By W. Jones, Raywood, Victoria Park, Wavertree, Liverpool. 267,529.

"EMBROX"; for embrocations. By H. Hunt, 10 Balfour Road, Southport, Lancs. 267,757.

"METAKALIN"; for a pharmaceutical product. By the Farbenfabriken vormals F. Bayer & Co., Elberfeld, Germany. 267,828.

"KORNI" ("Corne" disclaimed); for scientific instruments, etc. By J. A. Tickner, 30 Great St. Helen's, London, E.C. 265,769.

Device of a lion rampant; for photographic apparatus. By the Imperial Dry-plate Co., Ltd., Ashford Road, Cricklewood, London, N.W. 266,970.

"KRUTOID"; for surgical, etc., instruments. By Sykes, Josephine & Co., 280 Regent Street, London, W. 267,559.

Device of a virgin; for olive oil. By F. Boehm, 16 Jewry Street, E.C. 267,047.

"VANO"; for mineral and aerated waters. By the Midland Essenco Co., 17 Church Street, Newton Heath, Manchester. 267,024.

"CRINELLA" ("Crine" disclaimed); for a hair-preparation. By M. F. McGuire, 51 Upper Sackville Street, Dublin. 266,879.

"PRODEW"; for perfumery, etc. By P. Edgelow, 8 Abercorn Place, London, N.W. 266,958.

"SOOTHOLEEN" ("Soothe" disclaimed); for a toilet-preparation. By H. Hanson, 6 Swainson Street, Blackpool. 267,084.

THE STATE-SERVICE PHARMACISTS of New York are pleased that their salaries have been increased from \$40 to \$75 a month. Efforts have been made for some years to increase the position and pay of apothecaries holding State and Government positions, and this instance of success is all the more gratifying.

Medical Gleanings.

COOLING SUPPOSITORIES.

It is proposed by a French pharmacist to use ethyl chloride as a cooling agent when preparing suppositories. The mould is wiped out with cotton wool wetted with ethyl chloride before pouring in the melted suppository-mass. In from three to five minutes the suppositories will have set hard.

STERILISING WATER.

MM. PATERNO AND GINGOLANI ("Annales de Chimie Analytique") state that the addition of tachiol (fluoride of silver) to water in the proportion of 1 in 500 produces perfectly sterile water. The silver salt is deposited on standing for twenty-four hours, and the quantity of silver remaining in solution is not more than a milligram per litre.

COLCHICUM-CORM IN ACUTE GOUT.

DR. D. DUNCAN says in the "B.M.J.": "Should anyone be dissatisfied with the action of colchicum wine or tincture, let him try the corm itself powdered, and far better results will be obtained. Larger equivalent doses can be given without the undesirable effects, while with an equal amount the improvement in the condition will be much accelerated."

UNINFLAMMABLE BENZINE.

THE use of tetrachloride of carbon for rendering benzine unflammable has been noted in THE CHEMIST AND DRUGGIST. Now a French review suggests the tetrachloride for mixing with alcohol, ether, and collodions. For benzine 25 to 30 per cent. of tetrachloride of carbon is needed, and so complete is the non-inflammability of the mixture that it is possible to use it as a fire-extinguisher.

PERMANGANATE-OF-POTASH PENCILS.

M. LEMAIRE, in the "Bulletin de la Société de Pharmacie de Bordeaux," suggests the use of sodium phosphate for the preparation of permanganate pencils. The sodium phosphate ($\text{PHO}_3\text{Na}_2\text{H} + 12\text{H}_2\text{O}$) is melted in a porcelain capsule, and the prescribed quantity of permanganate added; the liquid is then poured into moulds greased with vaseline. The pencils should be stored in glass tubes hermetically sealed.

TREATMENT OF HÆMORRHOIDS.

THE property which calcium chloride possesses of increasing the coagulability of the blood is taken advantage of by Dr. Boas ("Therapie der Gegenwart") in treating bleeding piles. An injection of 3iv.-5vj. of a 10-per-cent. solution of calcium chloride is made into the rectum each morning, and the treatment should be continued a month after bleeding has stopped.

SANTONIN IN MEDICINE.

SANTONIN is generally looked upon as used in medicine solely on account of its anthelmintic properties. It is, however, used in nervous affections, particularly in epilepsy. Recently ("Semaine Médicale") Dr. Molle has extolled santonin as an antispasmodic. A case is given in which a child that had convulsions from a gastro-intestinal trouble was at once quieted by a grain of santonin. From this and other cases Dr. Molle concludes that santonin is a valuable remedy in all gastric troubles of a nervous origin.

ACNE-LOTION.

Decoction of quillaia	...	...	3iv.
Eau de Cologne	...	...	℥XX.-℥X.
Liquid ammonia	...	...	℥XXX.-℥.

Use night and morning.

For extracting comedones Unna recommends the following ointment, to be used night and morning:

Kaolin	...	...	3iv.
Glycerin	...	...	5ij.
Acetic acid	...	...	3ij.

Shake before use.

After using the ointment the comedones are easily squeezed out.

Association Ballads.

THE PURPOSE.

*The men, their aims, their daily irk;
Their troubles, trials, thoughts, and views
On things politic, focs that lurk
In friendly guise, but treach'rous work—
These be the burden of our Muse.*

LI. TEESSIDE.

The pampered politician rude,
Who talks with glib, complacent ease
The pharmaceutical platitude,
Is shunned at Middlesborough-on-Tees.

The timorous chemist, gentle, meek,
Who trembles when officials sneeze,
Is smitten on the nearest cheek
By men of Stockton-on-the-Tees.

The cutter who, with blatant bray,
Attempts forbidden fruit to seize,
Is beaten till he runs away
From Middlesborough-upon-the-Tees.

Brave Leaders to the "Royal" run
The Wrath impending to appease,
When Taylor (*hyphen* Middleton)
Presides at Stockton-on-the-Tees.

Or at the "Albany" they meet
With Denis Owens, Holts and Lees
And Brackenbursys; hard to cheat
These folks at Middlesborough-on-Tees.

For Secretary Salmon sends
A warning of each Bloomsbury wheeze,
And every pharmacist attends
Who lives beside the flowing Tees.

And Bainbridge gives mature advice,
To unlocked problems gives the keys;
While Finlayson pricks in a trice
Deceit—at Middlesborough-on-Tees.

Scientific Progress.

Turicine.—By the condensation of tannin and gluten casein a powdery substance is obtained, which has been termed turicine. It is said to be a very useful compound in the treatment of dysentery and diarrhœa.—*Journal de Pharm.*, d'Anvers, 1904, 339.

Commercial Amyl Alcohol.—H. Droop Richmond has found 1 per cent. of petroleum in this product, as much as 4 per cent. being recorded by others. The impurity appreciably vitiates determinations of fat in milk by the centrifugal method, but can be satisfactorily removed by fractional distillation.

The Constitution of Camphor.—Kompa ("Berichte," xxxvi, 4332) has effected a complete synthesis of camphoric acid, which practically establishes the correctness of Bredt's well-known constitutional formula for camphor. The synthesis was achieved by condensing the dimethyl ester of *b*-dimethyl-glutaric acid with the ethyl oxalate. An apocamphoric acid results, from which camphoric acid is eventually obtained.

Yangonine.—Kava-kava root (*Piper methysticum*) has been found to contain the crystalline bodies, methysticine and yangonine. The former appears to be a methyl ester of piperinyl-acetic acid, but the latter has not hitherto been well understood. Nötting and Kopp assigned to it the formula $\text{C}_{10}\text{H}_{16}\text{O}_5$. Lewin described it as melting at 151° . Riedel has now shown that the body examined by Lewin was not sufficiently purified, and has prepared it in a state of purity. He finds that pure yangonine melts at 156° . It appears to have the formula $\text{C}_{10}\text{H}_{16}\text{O}_5$. Investigations are proceeding with a view to establishing the constitution of the compound.

Surinam Copaiba.—Seven samples of Surinam copaiha have been examined by Van Itallie and a colleague, who give the following particulars about it. After freeing the oleo-resin from resin acids by means of alkaline carbonate solution, the essential oil was distilled, leaving the rosenes behind. From the essential oil crystals melting at 113° - 115° C. were obtained, which had the formula $\text{C}_{15}\text{H}_{26}\text{O}$. These crystals appear to be a sesquiterpene alcohol. The liquid portion of the essential oil held the following characters: Saponification-value, 6.7; acetyl-value, 28.4; sp. gr. 0.903 to 0.905; op. rot., -7° to -10° . Caryophyllene could not be detected in the oil. Cadinene, however, was found, and apparently two other sesquiterpenes, one dextrorotatory, the other levorotatory.

Observations and Reflections.

By XRAYSER.

Glory is Won,

says Ovid, from public disasters. Apollo owes his fame, as the motto of the Apothecaries' Society witnesses, to the sufferings of the human race; and Hector would have been unknown if Troy had continued to flourish. Similarly, I notice, Mr. Henry S. Wellcome, who some two years ago presented a fully equipped Wellcome Research Laboratory to the Soudanese Government, has been rewarded by having a mosquito named after him. The first year's report of the institution referred to by the director, Dr. Andrew Balfour, which is a beautifully illustrated production, shows at least what possibilities of useful service such a laboratory offers, and not to the Soudan only. Among much that is interesting, mosquitoes and other insects naturally have filled a large share of the year's study. A number of these enemies of the human family have been sent home by Dr. Balfour to Mr. F. V. Theobald, of the South-Eastern Agricultural College, to be identified. Among these are some new specimens, and one, a new anopheles, is named by Mr. Theobald *Anopheles Wellcomei*. "It boarded the steamer in the evening at Baro, and bit freely," writes Dr. Balfour of Mr. Wellcome's new godchild. Whether the insect does credit to the name he bears or not, the laboratories themselves certainly will.

'So Very Exclusive'

was the burden of the bard's ode to the Wholesale Druggists' Club. Exclusiveness may be the consequence of modesty, of pride, or of an accusing conscience. Certainly it comes natural to suspect a secret society. The allegation that the wholesale druggists dine off roast retailers at their club banquets is probably an exaggeration, but I felt some sympathy with the correspondent who revealed their conspiracy to collar the B.P. The difficulty about that charge is that the crime would not be worthy of the participants in it. As Mr. J. C. Umney has just pointed out, the B.P. is sure to be food for them, however or by whomsoever it may be compiled. So it would be a mere waste of depravity to scheme nefariously for its possession. But I am curious to know what will be said at the Drug Club in reference to Mr. Umney's temerity in dragging to the front the ticklish question of

Wholesale Responsibility.

Will the members generally accept the Bill their Secretary has drawn on them? It is not easy to extract from Mr. Umney's undoubtedly important paper his exact idea of the limits he would fix to that responsibility. And yet that is what we want settled. Reading the paper with a conscientious desire to interpret it correctly, I understand the author to say to retail pharmacists, in effect, "Yes, you have the right to insist on a comprehensive warranty. If we wholesalers sell you a preparation and label it B.P., you have the right to require that those letters shall form a part of the contract. Only remember, if you want to be a real swell pharmacist—one of those you read about in the books—you will rely on your own skill, not on the wholesaler's warranty. If you are content to be mere buyers and sellers, however, which is what the ten thousand chemists outside this room have to be, you ought in all decency to pay the wholesaler a little more for his goods to remunerate him for his responsibility." Now let us turn for a moment to

The Retail View,

which I do not think was adequately expressed at the Western meeting. No matter how much tall talk is indulged in, it is the fact that in practice the ordinary chemist and druggist must rely, in regard to most of the drugs he sells to the inspector, on the wholesale druggist. It is also the fact that the battle for purity has

been fought so far almost entirely at the expense of the retailer. For unsuspected faults in the articles sold he has been the one to pay in fines and reputation, though in strict justice his actual share in the misfeasance has been almost infinitesimal. Mr. Umney refers to some suggestion of repealing the warranty sections of the Sale of Food and Drugs Acts. I was not aware that this was contemplated, and surely, if anything is needed, it is to seek to make these sections more effective and more available.

Mr. Broadhead

is personally a hopeless case. But his specious arguments seduce a certain number of victims every time they are printed, and for their sake it is necessary to repeat the reply which has already been often given to them, and which has convinced everyone who has closely investigated the controversy. Mr. Broadhead correctly says that in the 1880 case the question of titles was not raised. The defendant company were sued for that, being unqualified, they kept open shop for the sale of poisons. Therefore, says Mr. Broadhead, let us now have a shot at some other company exclusively in regard to the use of the description "chemist." The answer is that the Court of Appeal and the House of Lords judgments covered a great deal more than the actual offence alleged. The question of law submitted to them was whether the word "person" in the first and fifteenth sections of the Pharmacy Act should be construed so as to include a corporation. The whole of the judgments were concerned with that contention, and six judges came to the conclusion that the sections could not be so interpreted. It followed, therefore, that the London and Provincial Association could keep open shop for the sale of poisons, and it followed just as surely that they could call themselves chemists if they liked. Now let it be understood that this deliberate interpretation of the law by the House of Lords cannot be reversed by any Court, not even by the House of Lords itself—remains settled law, in fact, until Parliament shall see fit to alter it—and it will be seen how foolish is the demand for a new test-action.

Pharmacologia

in the new *C. & D. Diary* is an effective reminder of the peculiar legal perils which environ the pharmacist from his apprenticeship to his bankruptcy. Of course everybody has to dodge the policeman more or less in his worldly career, and chemists are as liable to ordinary pains and penalties as the rest of his Majesty's subjects. But, in addition to these risks, a large number of special ones attend us, more perhaps than most classes of the community have to encounter. That at least is what the treatise suggests. And it further shows how modern most of our dangers are. Fifty years ago there was no Medical Act, no Dentists Act, no Veterinary Surgeons Act to infringe. We could explain our particular gifts and graces and side-lines without the fear that some pretty adjective might cost 20% and a reprimand from the Bench. The Medicine-stamp Acts were all in print, but the Board of Inland Revenue were content with what money came along in easy fashion, and made but little trouble about chemists' own proprietaries. The Arsenic Act had been passed, but there were no restrictions on the sale of other poisons, and poisoned grain and poisoned flesh were recognised commodities. It is true that at that time anybody could sell poisons and call himself a chemist; but nobody except those who had served a regular apprenticeship wanted to do so. A little skilful adulteration was regarded only as a part of the art and mystery which it had cost so much to learn. It was no one's business if scales or weights were inaccurate, nor if we invented a title which was poetic rather than explanatory. Our shop-windows were not scrutinised for the purpose of finding an indecent advertisement in them. A mere 2 or 3 per cent. of alcohol in ginger-beer did not trouble the exciseman, methylated spirit had not been devised, and limited companies were not invented until 1855. Neither workmen nor assistants nor young persons had acquired the rights which now entitle them to harass us, and the chemist thought that he of all persons was the proper trader to supply fireworks. It is doubtful whether the reign of law has been financially beneficial to pharmacists, but probably it has assisted in their moral development.

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Editorial Comments.

A Peculiar Year.

WHEN we turn over the numbers of THE CHEMIST AND DRUGGIST for 1904 to refresh the memory for this annual review, we find that without this one our subscribers have received fifty-two numbers during the year. It happens now and then that fifty-three Saturdays fall into the year, and our subscribers owe the extra number on this occasion to the fact that 1904 is a leap year. This seems to be its most striking peculiarity, for, although chemists have occasionally been agitated strongly, there has come little of permanent value out of all the excitement, and this review must necessarily refer only to the things that matter and that stand above the debris of lost opportunities and unfruitful effort. In Great Britain the paramount subject, so far as the drug-trade and medicine-vendors is concerned, has been that of

Dutiable Medicines.

It will be remembered that the Board of Inland Revenue had delayed until December 31, 1903, the incidence of their ailment-name ruling, but extended the period of exemption to March 31 of this year. Before that date several important things occurred which minimised the value to registered chemists of the exemption

as regards known, admitted, and approved remedies. In a series of cogently reasoned articles a *C. & D.* contributor showed that the exemption is based primarily upon the qualification of the vendors, the nature of the remedies being a secondary consideration. The Board of Inland Revenue had in 1903 so far accepted the principle of qualification as to recognise for exemption in the drug-trade only registered chemists, but the year had not gone far before they agreed to admit to the favoured class medicine-vendors who can prove that they have served an apprenticeship to a chemist or other person mentioned in the 1812 exemption. This was followed by a declaration that limited companies trading as chemists would not, pending alteration of the law in their favour, be treated differently from those who by statute are entitled to the exemption. Numerous small points in connection with known, admitted, and approved remedies were settled before March 31; but it is curious, when looking back upon these, to contrast the concern they produced with the comparatively placid conditions in which business has proceeded since. The Revenue authorities have not tried to catch the unwary, and chemists generally have followed strictly the regulations laid down in respect to exempted preparations. The second half of the year contains only one notable decision, this being in respect to medicines sold under possessive-case names. In 1887 the present Attorney-General gave an opinion to THE CHEMIST AND DRUGGIST to the effect that such names as Bland's Pills and Gregory's Mixture do not *per se* make a medicine dutiable, as they do not convey any idea of proprietary right. The Board of Inland Revenue recognised this contention in respect to these medicines as Pharmacopœial articles. In April we wrote to the Board on the general question, giving as instances of medicines which have never been proprietary, Liver-pills (Sir Andrew Clark), Christison's Pills, Hamilton's Pills, and Dobell's Aperient. The Board on October 11 decided to treat these titles thenceforth as free from liability, and intimated to us that they would be prepared to consider others in respect to which equally satisfactory evidence of the absence of any claim to proprietary title or to exclusive knowledge of the composition may be submitted. This decision is of real value to chemists, and we have asked their co-operation in tracing the origin of other household medicines with possessive-case names. More recent correspondence with the Board convinces us that the evidence to be submitted must be of an absolute character; it is not sufficient, for instance, to prove that the formulæ for medicines are common property. This does not exclude the possibility that a medicine may originally or at some time have been liable to duty, and neither the Revenue authorities nor the Law Courts can declare it to be free from duty until the supposition is disproved. Turning now to

Pharmacy Legislation,

if we take events as they have occurred, first place must be given to a Poisons Act passed by the Imperial Legislative Council of Calcutta in January, by which the local authorities throughout India are enabled to make regulations for the sale of poisons and the persons who may be licensed to sell them. Almost simultaneously a Medical and Pharmacy Ordinance was passed in the Orange River Colony. It regulates the practice of medicine, dentistry, and pharmacy in the Colony, and is the first British enactment which stipulates that limited companies carrying on business as chemists shall have a director or directors who are themselves qualified; and, although all directors are not required to be qualified, the functions of non-chemist directors are limited to attending and taking part in the proceedings of meetings of the

Board. In other respects the ordinance is a good scheme, and under it chemists share in the work of the administration. On January 25 Mr. Lough, M.P., agreed to re-introduce into the House of Commons the Pharmacy Bill prepared by the Council of the Pharmaceutical Society of Great Britain, and the Bill he introduced on February 29 was the same as that of previous Sessions, with the exception of a new provision reserving the rights of medical practitioners. The measure may roughly be divided into four parts: first, it reserves the dispensing of medical prescriptions to those who may lawfully sell poisons; second, it brings limited companies within the purview of the Pharmacy Act, requires their directors to be registered chemists, and prohibits their using the titles "chemist and druggist" and "pharmaceutical chemist"; third, it provides for the registration of shops kept open for the sale of poisons and dispensing medical prescriptions, and requires a qualified person to have charge of each shop; and, fourth, it provides for a compulsory curriculum and reciprocity of pharmaceutical qualifications within the British Empire. The Bill immediately met with opposition, the full quorum of blocking motions preventing the second reading. The opposition to it outside Parliament was led by Mr. Jesse Boot, as Chairman of the Drug Companies' Association, who objected to it because Clause 7 provides that each and every director of a company must be a qualified chemist, and because Clause 11 would make companies suffer disabilities although they comply with the regulations and safeguards required by law—in other words, "Boots, Cash Chemists" would cease to be a legal title if Clause 11 were enacted. The long-expected Government Poison Bill, to give effect to the idea that agricultural and technical poisons may be sold in "original sealed packets" by anybody, was not, owing to the exigencies of Parliamentary business, introduced, but early in the year it became known that the Privy Council was not averse to helping the Pharmaceutical Council's Bill if some modification were made upon it. This was in respect to Clause 7, but the temper of the trade was such at the time as to prevent any bargaining on the company question. Latterly, however, the President of the Pharmaceutical Society (Mr. R. A. Robinson) has stated publicly that without the help of the Government the Bill cannot progress, and this help can only be secured by modifying Clause 7 so that the person actually managing a company's business shall be a qualified chemist and a director of the company, but that all directors need not necessarily be qualified. That, we believe, is a fair statement of the compromise, but its exact nature has not yet been formulated or agreed to by the Pharmaceutical Council. Meanwhile the chemists of the Transvaal have secured the pharmacy law for which they worked for many years. This was passed on August 12 and comes into force on January 1, 1905. Under it a Board of Pharmacy, composed of chemists, is created; pharmacy and the sale of poisons are thoroughly regulated, and the Ordinance also contains the following important provisions:

No society or association of unregistered persons can use the title "chemists and druggists" *inter alia*.

The managing director of a chemist-company must be a registered chemist.

The name of the assistant managing a company shop must be conspicuously posted on the shop.

An offence committed by an individual shall be an offence by every director of a company if committed by such company.

These enactments in Orange River Colony and the Transvaal ought to be of real service when our Parliament actually considers the Pharmacy Bill. Besides the successful measures referred to, no others of equal importance

in the Empire have been enacted during the year. The Straits Settlements have got a new Opium and Morphine Ordinance which is objectionable in parts, and another is projected which deals with poisons generally and the qualifications of those entrusted with their sale. Amendments of the Pharmacy law of Queensland have been projected, and in Egypt the Khedive actually sanctioned a new Ordinance which recognised unqualified proprietorship of pharmacies. This was so strongly objected to by the pharmacists of the country that the Ordinance is not to be enforced.

Pharmacy Administration

in the United Kingdom has suffered little change during 1904. In Great Britain the year commenced with 13,436 chemists and druggists and 2,141 pharmaceutical chemists on the registers. During the year 584 out of 1,510 candidates have passed the Minor Examination, and 41 the Major, while 219 persons have been registered as students of pharmacy. The apparent total number of registered chemists at the moment is, therefore, 16,161; but erasures may be put down at 550, thus making the total 15,611. The Board of Inland Revenue report showed, however, that on March 31 there were in England and Wales 35,446 and in Scotland 3,016 sets of premises licensed for the manufacture and sale of stamped medicines. It is obvious, therefore, that the Pharmacy Acts control only a fraction of those engaged in distributing medicine to the public; and it is notable that the Registrar's report to the Pharmaceutical Council on the infringements of the Act showed that out of 151 cases dealt with only seventeen offences were committed in the shops of registered chemists. During the present year activity in the administration of the law has been maintained, and the Pharmaceutical Council have endeavoured to stop the deliberately intentional infringement by the sale of nicotine insecticide through unqualified retailers. One of these cases is the subject of an appeal to the High Court of Justice, and will shortly be heard. Four changes have occurred in the *personnel* of the Council. Mr. Campkin, of Cambridge, was in February elected to fill the place of the late Mr. John Taylor; Messrs. C. B. Allen and O. Corder retired in May, and their places were filled by the election of Mr. W. H. Gibson (Brighton) and Mr. A. Hagon (Cardiff). This month Mr. W. S. Glyn-Jones, who during the year has been called to the Bar, resigned his seat, which has not yet been filled. Mr. R. A. Robinson was appointed to the presidency in June, Mr. J. Rymer Young succeeding Mr. Allen as Vice-President.

The Pharmaceutical Society of Ireland has had a comparatively quiet year, and has secured a somewhat greater measure of support from the police authorities in enforcing the law. In one case counsel for the defence objected to the printed register being taken as evidence, and the Magistrates granted the objection; but on appeal by the Society the High Court almost contemptuously reversed the Magistrates' decision. Mr. Johnston Montgomery completed his year of presidency in October, when he reported that there was a total of 1,505 on the registers, 703 of these being pharmaceutical chemists and 71 assistants, the rest being chemists and druggists and registered druggists. We find that this year there have been 113 candidates for the Preliminary Examination, of whom 63 passed; 100 for the Licence, of whom 43 passed; and 60 for the Registered Druggists' Examination, 27 passing. The retirement of Mr. George Brown from the Council left a vacancy, which was filled in October by Mr. T. W. Brittain. Mr. W. F. Wells has been elected to the presi-

dency—a post in which he has previously distinguished himself—and Dr. J. A. Walsh is the new Vice-President. The Council decided not to seek for amendment of the Pharmacy Acts with the view to legislating on the company question, preferring to wait the issue of English action; but representative druggists in the North of Ireland are now moving to have the Acts amended so as to give greater facilities to druggists who desire to become pharmaceutical chemists. Other national organisations connected with pharmacy have been somewhat better supported in 1904, this being particularly the case with the Proprietary Articles Trade Association, while the Chemists' Defence Association continues to do good service. Mr. Glyn-Jones has, in consequence of his new professional obligations, resigned the secretaryship of the latter Association, and the circumstance was made the occasion of a magnificent tribute to his worth when he was in October entertained at a public dinner presided over by the President of the Pharmaceutical Society, who, in the name of subscribers, presented Mr. Glyn-Jones with testimonials valued at over 600/. Among the accomplishments of the year is the formation of the Society of Chemist-Opticians, a body founded for the purpose of guarding and promoting the interests of registered chemists who are engaged, as part of their dispensing practice, in fitting spectacles. The Society was started six months ago with a membership of about thirty, which has since been more than trebled. THE CHEMIST AND DRUGGIST took some part in the formation of this useful body, just in the way of helping a cause of value to chemists generally. We ought to mention that the British Pharmaceutical Conference had a successful meeting at Sheffield in August, under the presidency of Mr. T. H. W. Idris, who is succeeded in that honourable position by Mr. W. A. H. Naylor. The federation of Local Pharmaceutical Associations has also done good work, especially in educating parliamentarians on questions of interest to the trade. The only piece of

1904 Legislation

which interests chemists is the Shop-hours Act, 1904—a Government measure built on the lines of Lord Avebury's Early-closing Bill, but embodying the conservative amendments of the Select Committee of the House of Lords. The Act is permissive, but enables local shopkeepers to recommend restrictive measures which on official approval become compulsory. Nothing in any early-closing order can, however, apply to the sale of medicines and medical and surgical appliances. The Parliamentary Session was a particularly barren one, a great deal of time being taken up by Mr. Chamberlain's fiscal proposals and by discussion on ways and means. In the latter there were several debates about greater scope for the use of duty-free alcohol for industrial purposes, and, thanks to the co-operation of motorists, the Chancellor of the Exchequer at last agreed that there was ground for inquiry. Amendment of the Finance Bill was, therefore, withdrawn and a Committee, with Sir Henry Primrose as Chairman, and Mr. Thomas Tyrer as representative of chemical and pharmaceutical interests, was appointed in September. During the past two months it has heard evidence, and will hear more during January; but it is doubtful if the Committee's report will enable the Chancellor to make provision in his next Budget for any remission of spirit-duty, although it may be possible to add to the existing powers of the Revenue authorities for dealing with individual applications. In this connection it may be noted that the Bond party at the Cape compelled the Government to impose

an import-duty upon alcoholic medicines equal to that upon whisky and other alcoholic beverages. We opposed this on the grounds that it is not sanctioned by the South African Customs Convention, and consequent on the strong attitude taken by Johannesburg and Durban chemists the proposal was finally abandoned.

Wholesale Interests

at home were seriously affected by the Cape movement, but more general and more serious to manufacturers and wholesalers has been the growing tendency to involve them directly in the defence of cases under the Sale of Food and Drugs Acts. Notably there have been in 1904 prosecutions for the sale of cream of tartar and tartaric acid containing traces of lead, and of reduced iron containing traces of arsenic. The defence in some cases has been exceedingly costly—indeed, far beyond the means of the average retailer, or even wholesalers; for it is through combination among the latter that adequate defence has been secured. There have been few important trade-law cases during the year. The decision in favour of “tabloid” being a good trade-mark was upheld by the Court of Appeal, but “Absorbine” has been declared by the same Court to be a “descriptive” word.

The Art of Pharmacy

has not done badly, as many papers on practical subjects have been contributed to this journal alone as would suffice to give the British Pharmaceutical Conference quarterly meetings. The British Pharmacopœia Committee, under the direction of Dr. Donald MacAlister, has cleared the ground for starting the work of revision, Dr. Leonard Dobbin having investigated the manner of taking melting-points, while Dr. Dunstan and Mr. Robinson have prepared a monograph on the tests for arsenic. The Pharmaceutical Societies have appointed a Committee of Reference, consisting of eleven pharmacists, and there are indications that the British Pharmacopœia to be produced in 1910, probably, will represent the high-water mark in Pharmacopœias. The 1900 United States Pharmacopœia will be ready in a few months, and we venture to predict that in the future there will be such alternation and co-operation in publication of these two great works as will ensure the highest efficiency in each. We deal elsewhere in this issue with the commercial aspects of the year. It has been one of financial trial to all engaged in the business, more in respect to diminished profits rather than lessened returns; but there is some hope that the coming year will be a better and more prosperous one, and with that sincere hope we bid good-bye to 1904.

Chemical-trades Census.

Nor the least interesting of the many sections contained in the new Fiscal Blue-book is that relating to the number of persons employed in the chemical-trades of Great Britain and Ireland, the Russian Empire (excluding Finland), Sweden, Denmark, Holland, Germany, Belgium, France, Switzerland, Italy, Austria, Hungary, and the United States. The figures concerning Great Britain and Ireland have been compiled from the census reports for 1901, and in that year there were 58,232 employers and employed engaged in the chemical-trades. The Board of Trade take a liberal view of the “chemical-trade,” and include dye, paint, ink, blacking, alkali, manure, explosives, lucifer matches, manufacturing chemists, glue, size, and varnish makers, etc., which considerably swells the total. Manufacturing chemists employed 17,515 persons, of whom 3,161 were in Lancashire, 3,152 in London, 2,617 in Yorkshire,

and 1,560 in Essex; nine other counties covering the remainder. In alkali-manufacture 9,705 persons were engaged, of whom 4,543 were located in Lancashire, 3,400 in Cheshire, Durham only accounting for 966 persons. In Scotland, 2,786 were engaged in chemical manufacturing, and in Ireland the total is 143 only. Scotland has a total of 145 persons engaged in alkali-manufacture, as compared with seven in Ireland. Comparing the grand total of 58,232 with the returns taken at the previous census of 1891 and 1881, we find the figures represent increases of 17,271 and 28,675 persons respectively, so that in twenty years the total has almost doubled, which is in itself sufficient evidence of the growth of the chemical and allied industries in this country. It would be interesting to know in what particular items under this schedule the greatest progress has been made. In Germany and the United States we find even more rapid growth. Germany has a more comprehensive and better classification of the “chemical-trades” than we have, and in view of the importance of the subject we quote some of the leading figures:

	1875	1882	1895
Chemical works	7,913	14,910	26,951
Chemical, pharm., and photo. preps.	9,933	8,463	12,699
Aniline and aniline dyes	2,179	4,107	7,266
Coal-tar prod. (other than aniline and aniline dyes)	—	547	4,194
Essential oils and perfumes	1,334	1,359	2,462
Colours and dyes (except aniline and other coal tar dyes)	7,937	9,909	10,366

From the above it will be seen that the greatest increase is shown in “chemical-works,” but owing to the classification adopted it is impossible to make a relative comparison with similar works in this country. Again, in the United States there are thirteen items under the chemical-trades, including “patent medicines and compounds,” the number of persons engaged in the preparation of such being 19,175 in 1900, compared with 9,390 in 1890 and 4,025 in 1880. In 1900 there were 8,894 persons engaged in “drug grinding, druggists’ preparations, and castor oil” (not including prescriptions), compared with 4,214 persons in 1890. “Chemicals” employed 21,419 persons, or five thousand more than in 1890; and “perfumery, cosmetics, and essential oils” found employment for 3,182 persons, or twelve hundred more than in 1890. There are 45,945 persons engaged in the manufacture and sale of turpentine and rosin, an industry which has increased by leaps and bounds during the decade. The grand total for the United States is 140,515 persons, an increase of practically 80 per cent. over the figures of 1890. The Blue-book makes no deductions in regard to how protective tariffs have influenced the number of employed.

So May it Be.

The Publisher is so proud of this issue of THE CHEMIST AND DRUGGIST that he has shown us proofs of the advertisement section, and certainly to business men a perusal of the well-conceived and beautifully executed advertisements, breathing of good will and prosperity, are a happy augury for 1905. May it be prosperous to all in the trade. THE CHEMIST AND DRUGGIST will continue to do its best for the business as a counsellor and helper and promoter of progress in pharmacy and the drug-trade.

Sleeping-sickness in the Soudan.

Dr. Andrew Balfour, director of the Wellcome Research Laboratories, Gordon College, Khartoum, has a paper in

a recent issue of the "British Medical Journal" on Trypanosomiasis in the Anglo-Egyptian Soudan. Trypanosomes have on several occasions been found in the blood of donkeys and mules in the Bahr-el-Ghazal province, but only recently have trypanosomes been discovered in the blood of cattle from Kodok (late Fashoda). The cattle in question belonged to a herd purchased by a Greek trader in the Shilluk country, and were taken by him to a place about fifteen miles from Khartoum. Dr. Balfour points out that much of the wealth of native tribes in the Southern Soudan is represented by cattle, and it will be a serious matter if bovine trypanosomiasis is found to exist to any extent and in a severe form in the Nuer, Dinka, and Shilluk herds. The question of human trypanosomiasis in the Soudan is, however, more important, owing to the geographical position of the country. So far trypanosomes have not yet been discovered in human blood nor has *Glossina palpalis* been reported to exist, but Dr. Neave, who has recently been appointed travelling pathologist and naturalist to the Research Laboratories, will investigate the subject on the upper reaches of the White Nile and in the Bahr-el-Ghazal province during the present winter.

Travellers' Tales.

An "anecdote" in a recent issue of the "South Gloucestershire Chronicle" throws yet another amusing side-light on the layman in his dealings with pharmacy. The writer of the paragraph tells of a conversation he overheard in a railway carriage between two commercial travellers who were discussing their pet dogs. One "commercial" said his dog had become quite paralysed, and one day he got "a quarter of a pint of prussic acid" to put it out of agony. He poured the full "quarter of a pint" down his paralysed favourite's throat, and the dog licked his lips, smiled, and seemed rather to enjoy it. When he told the country chemist from whom he bought "the quarter-pint," the knight of the pestle replied (according to the voracious chronicler), "Well, yes, it wasn't very strong. You see, we very rarely get asked for it, and the cork had dropped out of the old bottle we kept it in." In a subsequent issue "A Country Chemist" makes quiet fun of the commercial travellers and their "stories." He thought that the possession of a quarter of a pint of prussic acid by any layman was unique in the annals of history, and he pictured the harrowed feelings of the Pharmaceutical Society of Great Britain—if they only had known. We may also picture the reception any commercial traveller would receive who called on any chemist—country or other—for one-twentieth of a pint of prussic acid.

Anæsthetics.

Dr. Frederic W. Hewitt details in two issues of the "Lancet" a series of clinical observations (involving fifty cases) on the anæsthetic effects of methyl oxide, ethyl chloride, and somnoform. His conclusions are that neither of these anæsthetics by itself is ideal. When methyl oxide is largely diluted with air the mixture does not produce a very satisfactory form of anæsthesia, and mixtures sufficiently concentrated to produce satisfactory anæsthesia are too pungent to be pleasant. In its use, however, there are no indications of danger. Ethyl chloride is a useful anæsthetic for certain cases, and is a fairly good substitute for nitrous oxide. It is, however, somewhat uncertain in action, but its chief drawback lies in the frequency with which it produces unpleasant after-effects—headache, nausea, vomiting, and an indescribable feeling of depression. As a routine anæsthetic for short dental operations ethyl chloride is distinctly inferior to nitrous oxide and

oxygen, although it produces a longer anæsthesia. In small children who are about to undergo brief dental or throat operations, or in those adults who are bad subjects for nitrous oxide or nitrous oxide and oxygen, ethyl chloride will generally answer well. The best mode of administration is by means of the special apparatus (made by Barth) which allows of a gradual addition of ethyl-chloride vapour to a known volume of air breathed backwards and forwards. By adding ethyl chloride to nitrous oxide a very deep form of anæsthesia is induced with extraordinary rapidity, the method before-mentioned having the advantage of producing unconsciousness more pleasantly than with ethyl chloride alone. Somnoform, in Dr. Hewitt's experience, does not produce such good results as pure ethyl chloride, and is distinctly more dangerous.

The Rehabilitation of Soudanese Trade.

In the current "Recueil Consulaire de Belgique" (Vol. 126, part 4), dealing with Egypt and its Dependency, M. L. Maskens, Belgian Consul-General, gives some interesting information regarding the future of the Soudan. He points out that although the British officials entrusted with the Government of the country have thrown themselves heart and soul into their work, many years must elapse before these efforts bring forth much fruit. In the first place, the country has been almost depopulated. It is estimated that the population before the insurrection was about 8,525,000; of these at least 3,451,000 died from famine and disease, and a like number were killed or massacred by the Dervishes during the domination of the Mahdi and his successor. The commerce of the country is, however, steadily growing, and with the introduction of irrigation and the completion of the Berber-Suakin Railway a great impetus to agriculture and trade should be given. The only immediately available asset of the country is gum, and this, in the present state of the gum-market, is scarcely a reliable one. The total export of gum *via* Egypt in 1902 was valued at E.230,453/., and in 1903 this fell to E.192 656/., partly due to the overstocked condition of the European markets and partly to the poor gum-harvest. The Consul-General deprecates the speculation in this commodity which goes on in Khartoum among the gum-merchants. He thinks that a better era should set in for this trade with the completion of the Berber-Suakin railway three years hence. The Soudanese Government has recently monopolised the rubber and guttapercha trade; this was necessary owing to the wholesale destruction of the rubber creepers by the natives, and great efforts are now being made to develop the trade on proper lines. One of the greatest obstacles in the way of exploiting the resources of the country is the lack of coal, and recently a geological expedition has been equipped to explore districts in which carboniferous deposits are likely to occur. At present even the valuable gum-trees are being cut down for fuel in some districts. The soil in some parts of the Soudan is stated to be extraordinarily fertile, but M. Maskens does not believe in the sanguine accounts published in some of the English papers regarding the possibility of the Soudan becoming a great cotton-growing area in the near future. The Soudanese native, unlike the fellah of Egypt, is not naturally industrious, and he has no ambitions—even clothes he regards as cumbersome and useless luxuries—so, having few wants, he has little incentive to industry. His objection to slavery is based more on his dislike to work than on the loss of liberty entailed. In these circumstances there is little wonder that capitalists and others interested in the country are seriously considering the introduction of coolies and American negroes used to agricultural work.

Laboratory Notes

By S. JUDD LEWIS, Pharmaceutical Chemist.

EXTRACTUM GENTIANÆ.

The effect of evaporating this extract *in vacuo* is peculiar: a curious jelly results which forms a guttapercha-like skin on its surface. If, however, the dilute liquors be rapidly concentrated in an open pan to a syrupy consistency, and this thick liquor be evaporated *in vacuo*, an extract of excellent quality results.

OPIMUM-ASSAY.

The B.P. directs the opium used for assay to be dried at 100° C. As this drying takes a considerable time, and it is often necessary to ascertain the proportion of morphine by the official method as quickly as possible, one naturally resorts to finding the percentage of morphine and of water in the moist drug and thence deducing the required figure. The calculation is simplified by the following considerations and formulae. Well mix the sample of moist opium or not-dried powdered opium and weigh out the quantity for assay; then immediately, in order to prevent change in the degree of moisture, spread out on a glass and weigh a portion to be dried for ascertaining the percentage of water (P). As the opium is used as received the moisture it contains is equivalent to so much more water being added; therefore if the opium contains P per cent. of water, $(104 + \frac{1}{10} P)$ c.c. is equivalent to 10 grams of moist opium. But this does not correct for the difference in volume that should be allowed for the solid matter in solution; for if 10 grams of moist opium is equal to $(10 - \frac{1}{10} P)$ grams of dry opium and 4 c.c. be allowed for 10 grams of dry opium, then $(10 - \frac{1}{10} P) \frac{10}{10 - \frac{1}{10} P}$ c.c.—

i.e., $(4 - \frac{1}{25} P)$ c.c.—should be allowed on $(10 - \frac{1}{10} P)$ grams of dry opium—i.e., on 10 grams of moist opium; therefore $(104 - \frac{1}{25} P)$ c.c. corresponds to 10 grams of moist opium. Combining these two, we find that 10 grams of moist opium, or $(10 - \frac{1}{10} P)$ grams of dry opium, is represented by $(104 + \frac{1}{10} P - \frac{1}{25} P)$ c.c.—i.e., by $(104 + 0.06 P)$ c.c. of filtrate. Let M be the weight of pure morphine found by titration to be equivalent to the crude morphine obtainable from $(104 + 0.06 P)$ c.c. of the filtrate; then the percentage of morphine in the moist opium is

$$\frac{(M + 0.10) \cdot 100}{10 - \frac{1}{10} P} \text{—i.e., } (M + 0.104)10 \text{—and in the dry opium}$$

$$\frac{(M + 0.104)1000}{100 - P}.$$

SAPONIFICATION.

In most pharmaceutical laboratories saponification-experiments have to be performed at frequent intervals and yet not so often as to make it convenient to go through the lengthy process of preparing and standardising the usual Koettstorfer's solution. The following *modus operandi* works without any inconvenience whatsoever, except, if desired, the recovery of the alcohol. If the alcohol is not recovered, the extra cost is insignificant if experiments are performed only occasionally. The volumetric alkali solution is prepared by dissolving metallic sodium in a suitable quantity of 90 or 95 per cent. rectified alcohol. Only the quantity of solution required for the determinations in hand is made at one time. The standardisation is effected by means of a "blank" experiment. Suppose, for example, the ester-content of an essential oil or the saponification-number of a fixed oil is to be ascertained. Solutions of half-normal strength are suitable. To produce an approximately half-normal alcoholic solution of sodium hydrate, dissolve $23 \times \frac{1}{100} = 0.23$ gram (i.e., 0.46 gram, or little more—say, 0.48 to 0.50) of clean metallic sodium in 42 or 43 c.c. of 90 to 95 per cent. alcohol, rotating the flask and keeping it cool by holding it under the tap or immersing it in cold water; the sodium will quickly dissolve. By a pipette withdraw about 20 c.c. of the solution and add it to the oil contained in the saponification-flask. Then withdraw precisely the same quantity of the soda solution and transfer it to another (empty) saponification-flask for the "blank." Heat both flasks equally, and finally titrate with standard acid. The difference in the quantity of acid required is the measure of the ester-

content or saponification number of the oil. By this method everything works as quickly and easily as with an ordinary alkalimetric titration, and there is no difficulty about standardising the alkali solution. Further, there is no trouble or risk of error due to calculations, and it possesses all the advantages of the "blank" method. The alcoholic solution of alkali is perfectly colourless, and the observation of the change in the indicator is correspondingly sharp. Sometimes it is desirable to use the alkali of some unusual strength; but no inconvenience is experienced, as a solution of any strength can be readily made and used. To recover the alcohol: Two winchesters should be kept; into one put the alcoholic residues from fixed oils, waxes, etc., which have little or no odour, and when sufficient has been collected recover the spirit by simple distillation. Into the other put the alcoholic residues from essential-oil experiments; when sufficient has been collected, dilute the spirit with brine to separate the oil as much as possible, and clean from the remaining essential oil by shaking out two or three times with a small quantity of fixed oil, and distil the spirituous layer, when a product is obtained of sufficiently mild odour for some pharmaceutical purposes.

TASTE OR FLAVOUR.

It is often desirable to determine with some precision the relative value of a sample with regard to its flavour. In some cases it is all-important. The worth of oils and essences used for aerated waters and for culinary purposes is necessarily judged by the delicacy and richness of their flavour. It is in some respects the simplest and most easily applied of all tests, but it requires to be made under proper conditions. The careless way in which it is often done renders the indication altogether misleading. Frequently a sample is examined by applying the bottle to the mouth or the finger to the bottle and then to the lips, without any care as to the condition of the parts with which the substance may come into contact. Some years ago I made some observations on this subject, and found that to arrive at any trustworthy result it is necessary to work with almost as much care as in a quantitative analysis. The palate is a very sensitive organ, and it is easily overpowered, so that if a strongly tasting substance be applied, slight differences of flavour are quite obscured. Accordingly, full provision should be made for taking advantage of the delicacy of the "apparatus" available. With few exceptions, the body under examination should be well diluted: a hundred, a thousand, or even ten thousand times, according to circumstances. Except in those cases where the chemist is quite familiar with tasting the particular substance, the observation should be made by comparison with another sample taken as a standard. In all cases every form of extraneous matter must be carefully avoided. Liquids are conveniently withdrawn by means of a clean, dry pipette, or by a glass rod; and the mouth of the bottle must be rendered perfectly clean before pouring any out: a little oxidised oil or extract from the mouth of a bottle may seriously modify one's impression of the quality of a sample. It is important to give attention to the state of one's mouth. It is not wise to criticise a flavour soon after a meal, especially after partaking of highly seasoned dishes, or after smoking. If the mouth and lips are not quite free from taste, they should be well rinsed with water before experimenting. It ought to be recognised that the principal flavour in two samples of the same substance is similar, so that it is the subsidiary factors which have to be compared; but it is the flavour as a whole which is first of all in evidence. It is therefore required to eliminate as far as possible the principal flavour, so that attention may be paid as exclusively as possible to the subsidiary. This may be achieved to some extent by first tasting both samples, so as to accustom the palate to the element which is common to them, and then after a minute or so repeating the tasting critically. A procedure which is simpler, and occasionally better, is to taste first sample A, then B, and after some time taste first B, then A. The palate quickly tires, and if satisfaction is not readily obtained the examination should be repeated some hours later. Generally, water alone should be used for dilution, but in the case of essences for aerated waters it is often more to the point to dilute with water containing, say, 10 per cent. of syrup, which may, if desired, be slightly acidulated with citric acid; the conditions

under which they will be used are thus more nearly approached. The proportion of essence employed should be such as will give a full but not powerful effect. The quantities of sugar, acid, essence, and water must be strictly the same in mixtures to be compared. For lemon oil the following works well:

Place 1 c.c. of the oil in a separator, dissolve it in 1 c.c. of absolute alcohol, add 10 c.c. of syrup, shake well, then add sufficient water to make up to 100 c.c., shake vigorously, and let stand five minutes; draw off the aqueous layer and taste it. The odour of the oily layer, also its taste, may throw further light on the quality of the oil.

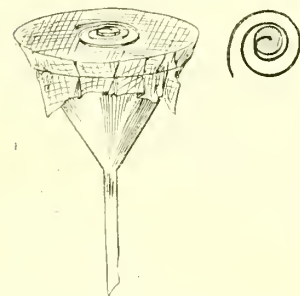
Some other volatile oils may be treated similarly, but usually much less oil must be used—say, 0.1 c.c. in 100 c.c. For fixed oils—*e.g.*, olive and cod-liver—the best and simplest method is to place about 1 c.c. on a small watch-glass from which it is sucked without letting it touch the lips more than cannot be avoided.

ODOUR.

The general principles involved are the same as those for taste. When it is desired to compare two liquids or powders in their natural state, equal quantities should be put into two 50 c.c. beakers placed side by side on the bench. If they are held in the hand for more than two or three seconds, they become warmed and the odour modified; and as it is unlikely they will become warmed equally, the comparison is entirely upset. Care should be taken to avoid breathing into the containing vessel. Volatile oils may be dissolved in ten or more volumes of odourless alcohol, and a few drops of the solution spread over a small filter-paper, which is hung on a pin stuck in a shelf or the like, and examined as soon as the alcohol has dissipated. For comparisons the solutions must be prepared and used quantitatively. Generally it is best to use the substance pure, or merely diluted at the ordinary temperature; but sometimes an odour can be artificially developed with advantage. For example, an apparently good glycerin rarely has much odour when cold, but on warming an unpleasant odour may become evident. If the glycerin be mixed with half its volume of dilute sulphuric acid (1 in 4), and heated to about 90° C., it will probably have a decidedly unpleasant fatty or sharp smell if it has not been properly refined.

DISINTEGRATION OF COMPRESSED TABLETS.

In judging the value of a tablet much importance must be attached to the readiness with which it will break up in the stomach—*i.e.*, to the conditions under which it will become available physiologically. It is not easy to arrive at a satisfactory solution of the problem, because it is difficult adequately to imitate the action of the stomach on account of the coexistence of so many and varied conditions. Perhaps it is not necessary; but we are aware to some extent of the nature of the gastric fluids, the temperature prevailing, and the mechanical movements of the stomach. The temperature can be reproduced, also an artificial mixture having some of the properties of the fluids of the stomach can be made; these can be combined with some movement, so that the tablet can be tested with an approximation to the natural conditions. The device which I describe is very simple, and easily applied in the ordinary pharmacy. It has the merit that the conditions of experiment are uniform from time to time, while one or more of the factors can be



varied at will. The solvent actually in contact with the tablet is renewed at the fall of every drop, and the regular dropping maintains a well-defined movement. A piece of muslin is stretched over the top of a small funnel, drum fashion, and on it rests a flat spiral of wire, about $\frac{1}{32}$ inch thick, on which the tablet is placed. At a height of six inches above the spiral is a jet from which one large drop of solvent falls on the tablet every second. The value

is then determined by the time required for complete disintegration. The wire spiral should not be omitted, as it keeps the tablet in position, and in the case of insoluble substances raises it above the portion already disintegrated. Instead of the muslin and spiral, a piece of wire gauze, having a small depression suitable for holding the tablet, may be used. Water from the tap at the ordinary temperature is the most ready to hand and usually gives sufficient indication of the property in question for ordinary purposes; but when desired another solvent at a given temperature may be used by dropping it from a vessel provided with a tap or pinchcock. If one wishes to apply the test at a particular temperature, both the liquid and the apparatus must be maintained at that temperature throughout the experiment. The time required for tablets of the same batch is constant, provided the weights of the individual tablets be equal, but considerable differences between various brands of the same remedy are sometimes revealed. Some are very resistant, their surfaces being scarcely broken after two or three hours' continual action, while some of the soluble ones have entirely disappeared in a few seconds.

Trade Notes.

PHIXENE is the name of a new cement prepared by the Azotus Manufacturing Co., Upper Holloway, N. It is a liquid cement, packed in tubes, and the proprietors have taken a firm stand in regard to maintaining the retail price at 6d.

"WHAT'S THE MATTER?" "Got a cold." "Have you turned up 'R.E.P.'?" "Haven't it." "Buy one at the railway bookstalls and be comforted." This little conversation, applicable to fourteen ailments, is being used most effectively by Messrs. Elliman, Sons & Co., Slough, as a column advertisement in the "Times" and other leading dailies. It is said by experts to be one of the cleverest advertisements of recent times, and it is certainly sending up sales of "Elliman." We presume chemists are aware that they also can sell "R.E.P." at a profit.

MESSRS. HOWARDS & SONS, LTD., Stratford, E., are issuing to the trade a circular letter regarding an impression which appears to be very prevalent throughout the retail trade that their preparations are only obtainable at prices considerably in advance of those of other makers. They point out that this is not so, and mention the few exceptions (*e.g.*, bicarbonate of soda, Epsom salts, and sulphate of quinine), the higher prices in these cases being justified by the exceptional purity. The letter proceeds to state that wholesale druggists are in a position to charge the lowest current prices for all Howards' preparations, and retailers are asked to insist on having original packages when ordering Howards' chemicals from wholesale druggists.

ON THE P.A.T.A.—The additions to the P.A.T.A. protected list during December include: Armour's "Fine Art" series of soaps; Barclay's "Physiotype" developing-powder, clearing and fixing compositions, printing and prepared papers; "Dulsoline" lip-salve (pink), Pomade Hongroise, toilet-powder (natural and pink); Glisene; Harrison's nursery-pomade, rat poison, "hair-growth," hair-colour restorer, "Circobane" insect-powder; Dr. Karl's digestive malt jelly and "Maltolenn" jelly; Lohse's "Eau de Lys," "Lily Milk" soap, "Fleurs Rustiques" and "Bouquet Royal" perfumes, "Emalin"; Munyon's "Paw-Paw" tonic and "Paw-Paw" liver-pills, witch-hazel soap and witch-hazel face-cream, talcum powder, hair-invigorator; Paget's malted farina; Peptenzyme Co.'s "Trophonine" and "Pancrobilin"; Pomeroy's skin-food, prepared oatmeal, astringent lotion, liquid powder, face-powder, "Eau de Fleurs," "Liline," liquid rouge, eyelash-cream, hair-stimulant, pomade, "Safada," "Eau de Vatican," Russian steam-bath; "Uricura" cough-mixture; Winter's "Lakshmi," "Karmalak," and "Crème Marquise."

BOOTS SATISFIED.—The recent sensational advertising in London and the provinces of the wares of Boots Cash Chemists, Ltd., has created considerable talk among chemists. A few weeks ago the company monopolised the whole front page of the London "Daily Mail" for ten con-

secutive days. Eight full-page insertions in the "Times" followed, and simultaneously whole-page advertisements appeared in the principal newspapers of big provincial centres. The cost of this publicity in the London journals alone is said to have been about 4,000*l.* or 5,000*l.* In advertising circles this was considered "the event of the month." The advertisements dealt mainly with Christmas presents (leather and silver goods). "It is not difficult to conceive that this bold advertising would result in the sale of 20,000*l.* worth of goods," says the "Advertising News." With a view to ascertaining whether the directors were satisfied with results, a *C. & D.* representative called at the London headquarters of the business in Farringdon Street, E.C. Mr. Boot was not in town, but the London manager telephoned to Nottingham, and the reply came promptly from Mr. Jesse Boot that he "was very well satisfied with the results, considering the bad weather, which was detrimental to business in central parts."

"MONTERRAT" PROTECTED. — MESSRS. EVANS SONS Lescher & Webb, Ltd., sole consignees of the Montserrat Co., Ltd., Liverpool and London, are intimating this week that "Montserrat" lime-fruit juice and its preparations will henceforth be protected in price, the following being the minimum "Montserrat" retail prices:

Lime-fruit juice, imperial pints 1*s.*, imperial quarts 1*s.* 10*d.*

Limetta or pure lime-fruit juice cordial, lime-fruit juice syrup, aromatic, fruit-flavoured, quinine, and sarsaparilla cordials, and squash, reputed pints 9*d.*, reputed quarts 1*s.* 2*d.*

Lime-fruit juice sauce, half-bottles 6*d.*, bottles 10½*d.*

The wholesale prices are the same, subject to 15 to 20 per cent. discount according to the quantity purchased—*e.g.*, on six dozen large and twelve dozen small sizes, assorted, the discount is 20 per cent., carriage paid, for cash. The conditions upon which the "Montserrat" preparations are to be supplied are that they shall not be sold retail under the above prices, dividends or bonuses on the goods being considered as selling under the fixed prices. If the conditions are violated by any person, firm, or company, the consignees will not supply them or any intermediary, and the buyers will forfeit all claim to fulfilment of any contracts existing, to any further supplies, and to any discounts or allowances on goods supplied. This arrangement should prove satisfactory to chemists and the better-class grocers, through whom the "Montserrat" preparations are chiefly distributed to the public, since it ensures for them a living profit consistent with the exceptional demand which follows the extensive advertising of the popular "Montserrat." This is practically the first beverage to be protected in price, and chemists will appreciate the advantage now secured.

Japanese War-taxes.

By ERNEST O. JAMES.

NEXT year's Budget was shown to representatives of the Lower House on November 11, and on November 12 to representatives of the House of Peers. I subjoin a list of articles used in pharmacy and the drug-trade which will be affected by the proposed increases if approved by the Diet.

Notwithstanding the unprecedented victories the Japanese have gained both on land and sea, a resident in Japan cannot but realise that the continuation of the preparations for carrying on the war to ultimate victory means the raising of immense sums of money both by borrowing and by increased taxation. The income-tax has already been increased by an additional war-tax, and according to the proposed Budget for 1905-6 a further addition is intended to be made.

The following is an epitome of what the income-tax was before the war:

Class I. Income of juridical persons, 25 per mille.
Class II. Interest on public bonds or companies' debentures payable in places where this law is in force, 20 per mille.

Class III. Incomes not belonging to the two preceding classes: Incomes of or over 300 yen, 10 per mille; over 500 yen, 12 per mille; over 1,000 yen, 15 per mille; over 2,000 yen,

17 per mille; over 5,000 yen, 25 per mille; and so on. In this class the prospective position is shown as follows:

Incomes less than Yen	To be added per cent.	Already added per cent. of the original tax before the war
500 ...	30	to the 70
1,000 ...	40	" 70
5,000 ...	60	" 70
10,000 ...	70	" 70

By importers who are profiting by the fat Government contracts the heavy taxes will not be much felt, but by ordinary business firms and their employes (who are already feeling the pinch) they will be very appreciably felt. But, I must say, the foreigners out here, although being heavily taxed, are as loyal to Japan as they were before or at the beginning of the war, and seem perfectly unanimous in their willingness to help Japan to pay the cost of the great fight she is making.

The following is a statement of the import-duties already referred to:

Article	Original Ad Valorem Duty, per cent.	Previously Added, per cent.	New to be Added, per cent.	Total, per cent.
Labels for bottles, tins, etc.	15	none	5	20
Plaster of Paris ...	5	none	5	10
Sponges ...	5	none	5	10
Toilet or dressing cases ...	25	none	10	35
All other drugs,* chemicals, and medicines, including medicinal tinctures, extracts, simple syrup ...	10	none	none	10
Balances, measuring scales, and tapes ...	10	none	10	20
Crucibles of all kinds ...	10	none	10	20
Chemical and surgical instruments ...	10	none	5	15
Photographic instruments or apparatus and parts thereof ...	15	none	15	30
Microscopes and parts thereof ...	10	none	10	20
Thermometers ...	10	none	10	20
Alcohol ... per litre	42 sen	3 sen	3 sen	48 sen†
Alcohol of all kinds ...	idem	idem	idem	idem
Spirits of all kinds (whisky, gin, rum, etc.) per litre	idem	idem	idem	idem
Camphor ... per cent.	10	none	10	20
Musk and artificial ...	15	none	10	25
Collodium, photographic, with iodiser ...	10	none	10	20
Capsules for bottles ...	15	none	5	20
Kerosene or petroleum ...	20	20	none	40
Ink (printing, copying, writing, and lithographic) ...	15	none	5	20
Sealing-wax ...	15	none	5	20
Cigars and cigarettes ...	150	100	none	250
Chalk and whitening ...	5	none	5	10
Charcoal, wood and animal	5	none	5	10

* With the exception of opium, which for medicinal purposes is imported only by the Imperial Government, from whom we purchase. This is more relaxed now than formerly, but the prohibition still applies to the crude opium and solid extract, which may be used for smoking purposes. Prohibition applies also to all articles for use in smoking opium.

† 4 sen=approx. 1*d.*

The most competent authorities predict such an era of prosperity for Japan after the war that we are all hoping eventually to make up for the increased taxation.

Yokohama, November 24.

SEEN THE ERROR.—A salary of Rs. 500 per month was first proposed by Government as sufficient for the new Agricultural Chemist for Madras. The inadequacy of the amount has now been realised, and a proper expert on a sufficient salary is looked for.

Dispensing for Friendly Societies.

FROM time to time advertisements appear in THE CHEMIST AND DRUGGIST Supplement asking for dispensers to friendly societies. Many qualified men fight shy of such positions, but perhaps this account of my 3½ years' experience as dispenser to one of the largest friendly societies in the country may brush away some misconceptions.

As most people know, these Societies are vast organisations composed entirely of working people, the Foresters and the Oddfellows being the best known and the most important bodies. Their object is primarily to render mutual help to members in time of sickness. In return for a fixed subscription sick-pay is guaranteed, and, in addition to this, each member is entitled to

MEDICAL ADVICE AND MEDICINE.

In many cases still (and formerly in all cases), the acting committee of a local branch of a friendly society would contract with a medical man practising in the neighbourhood for treatment for its members. The fee for each member would be 4s. or 5s. per annum; this would be paid in a lump sum to the practitioner by the committee. Some twenty years ago, in certain towns, the Friendly Societies entered upon a different course. They opened dispensaries of their own, and engaged doctors and dispensers to give their whole time to the needs of the members. They bought their own drugs and managed everything directly in the interests of their Society.

It was in a dispensary such as indicated that I spent 3½ years. My appointment was due to the fact that I had previously acted as *locum* in the same place. I was engaged under agreement and was expected to "dispense all medicines prescribed by the medical officers, to keep my department in order, and to maintain the stock of drugs requisite." The arrangement of the place was simple and convenient. There was a dispensing department shut off from the rest of the building by a wooden partition in which there was a small railway-station ticket-office opening to allow of bottles to be handed in and out. There were two waiting-rooms for the patients—one for the men and the other for women and children. Lastly, there were two consulting-rooms for the medical officers, and all these rooms were on one floor and connected by passages. At 8.30 A.M. the dispenser and the medical officers arrived, and the doors were opened. As the members arrived they were shown into the waiting-rooms by an attendant, who also ushered them into the consulting-rooms in turn. Each member was provided with a book which showed that he was entitled to treatment, and which contained blank leaves on which prescriptions might be written. This he (or she) handed to the medical officer before being examined. The medical officer prescribed and the patient handed the book in to the dispenser, who in turn supplied what was ordered. This process, repeated in a great number of individual cases, constituted the dispenser's main occupation.

Of course there were other duties. In the particular institution of which I speak there were

SEVEN THOUSAND MEMBERS.

Accidents are fairly frequent among the working classes, and the medical officers would often require hot antiseptic solutions, and now and again there would be some minor operation, and then the dispenser would have to prepare the dressings and get ready the anæsthetics. Occasionally his help might be called in in other capacities, and I remember some very warm work in a certain case of dislocation which was only reduced by the combined efforts of two doctors and dispenser. Nevertheless simple dispensing of liquids formed by far the greater part of my duties, and as most medical men have settled habits of prescribing, a definite system is usually adopted, and as a result the dispenser works with a somewhat limited number of preparations. He is thus able to keep up stock with ease and to get through his work with great quickness and accuracy. It should be said, however, that there was in my experience absolutely no stint. The medical

officers had power to order whatever they pleased, and, as a matter of fact, they always did so when in their opinion special treatment was necessary. A very complete collection of remedies, including a large number of the newer synthetic products, was kept in stock, but as the need for them was only occasional, there was no difficulty whatever in keeping them replenished.

The two doctors and the dispenser, working under the same committee of management, naturally had, to a certain extent,

A COMMUNITY OF INTERESTS.

We constituted what was called the staff, and stood between the committee on the one hand and the general body of members on the other. By firmness and tact the staff can in all cases command respect on every side, and, so far as the dispenser is concerned, his social position is much superior to that of his brother in the retail trade. At the same time, the medical officers, if approached in the right spirit, are generally willing to make the work of the dispenser as light as possible. They will give notice of anything exceptional that they are likely to require, supply formulæ of pills they intend to order, and the like. In this manner the dispenser is saved a lot of irksome labour, such as the continued making of small batches of pills and powders. These he can have prepared, and the dispensing proper is reduced to the preparation of lotions, liniments, and mixtures, solutions for which he should have ready to hand in large quantities. The position of the dispenser as an employé of the managing committee I found a very fair one. The committee is composed entirely of laymen, and, as they have no knowledge of matters pharmaceutical, they place their dispenser on his honour and give him full control of his department. They are shrewd enough to see whether he is acting conscientiously by them, and, once assured of that, they treat him with every consideration and never interfere. The dispenser does not have to appear before the committee, as, I believe, he is obliged to do before boards of guardians, and any suggestion he makes is always treated with careful attention. At the present day, when men with small capital can hardly expect to succeed in business on their own account, such a position as this would be preferred by many to even a managership in the most philanthropically directed store concern.

Hours vary in different institutions, but I believe they always compare favourably with those of the shop. I had, according to rule, 31½ hours a week, but in winter the work could not be done in that time, and it ran into forty hours. There was

ABSOLUTELY NO SUNDAY DUTY.

The salary rises from 90*l.* to 130*l.*, and in some cases there is a bonus in addition, while the engagement is a permanency to a good man. The Societies are in need of good compounders. Some time back the market was flooded with unqualified medical assistants who sought refuge in such institutions as dispensers. In some cases, they were men of ability in many directions, but they lacked that skilful and rapid manipulation of drugs which only a pharmaceutical training can give. This class is rapidly disappearing, while, on the other hand, the success of the pioneers in the independent dispensary movement of the Friendly Societies is almost a guarantee that such institutions will spring up in every town.

So far as the members are concerned, the dispenser need have practically no communication with them. We all know what arduous work it is to please customers in the retail business, and in this respect, again, the dispenser in such an institution as I have described has an immense advantage. He has no personal dealings with the members; a book is handed in to him and he returns it with the medicine prescribed; he need know nothing of the person for whom he is working, and it is as well, as a rule, to maintain that attitude.

It may be that I have given a somewhat glowing account of life in the Friendly Societies' employ. I believe that the position I held was the best of its kind in England, but there is every reason to hope that all of these institutions will adopt one general scheme of management, and that the status of the dispenser will be better in the future than it has been in the past.

Reviews.

Neues Pharmaceutisches Manual. Herausgegeben von EUGEN DIETERICH. Ninth edition. 14 parts. Pp. iv+748. 1s. per part. Berlin, 1904: Julius Springer.

THIS is the German "Pharmaceutical Formulas," but there is more in it than in any English work, for it includes the technics of pharmacy, and in this department is copiously illustrated with engravings of apparatus and machinery. The *Manual* follows the Pharmacopœia or alphabetical method, grouping, as each set of preparations occurs, the more important formulæ of Pharmacopœias foreign to Germany, or formulæ commonly accepted as representative or generally accepted to be typical, or, these failing, the formulæ which have been proved by the house of Dieterich to be reliable. The collection is excellent, and no department of pharmaceutical or extra-pharmaceutical practice is neglected. Several important sections are dealt with as sub-groups—e.g., compressed tablets, perfumery and toilet preparations, and veterinary remedies. The *Manual* was originally prepared by the late Mr. Eugen Dieterich, the first German apotheker to recognise in practice that medicine was growing beyond the possibilities of retail pharmacy and national Pharmacopœias. He embodied in the *Manual* the things that are not to be found in official literature, and the proof that he did well is in the fact that his work has reached the ninth edition. Dr. Karl Dieterich, his son, is responsible for this revision, and he has, naturally, strengthened the scientific aspect of the work, but it remains thoroughly practical, and, if in some departments it is not quite up to Anglo-Saxon ideals, it still remains for those who can read German an indispensable reference-work.

Practical Prescribing and Dispensing for Medical Students. By WILLIAM KIRKBY. 8vo. Pp. 169+vii. 4s. 6d. net. Manchester, 1904: Sheratt & Hughes.

THIS is a subject about which few medical teachers nowadays are capable of writing, one result being that medical students are imperfectly trained in prescription-writing, and what little they know about practical dispensing is gathered in a hasty course of instruction which has more respect for the official requirements than for practical needs. A pharmacist naturally is the best teacher of dispensing, but few of our universities recognise the fact, as this subject in the medical curriculum is generally entrusted to a young medical graduate who has shown special competence as a therapist. The Victoria University does not perpetuate this error, and as the author of the book before us worked with the late Professor Leech, he well knows the requirements of medical students. The book is a model, being tutorial from beginning to end, and remarkably devoid of any attempt to write up the matter. The author contents himself with concise definitions, and gives the student no opportunity of getting mixed up, as the theory of each subject is explicitly put, being followed by an exercise which drives home the theory and makes the student practically acquainted with the facts. In this manner Mr. Kirkby treats of mixtures, draughts, solutions, emulsions, pills, powders, cachets, capsules, confections, gargles, douches, enemas, sprays, inhalations, hypodermic injections, lotions, liniments, ointments, suppositories, pessaries, bougies, and plasters. Typical prescriptions are given in each chapter, with instructions for compounding them, and these are followed by such exercises as "Prescribe and dispense an ointment of sulphur and camphor," and "Prescribe six pills containing arsenious acid, reduced iron, and extract of gentian." A valuable chapter is that which deals with the forms of administration, solubilities, and incompatibles of the chief official and extra-official drugs. This is followed by others on the chemical reactions of medicines, which recall to the student their properties in connection with the very subject to which his knowledge of chemistry is the most desirable application. There is much more in the book, and it is obvious that Mr. Kirkby has done the medical profession and professors a distinct service in providing them with so well-designed a course of tuition carried out with eminent literary and pharmaceutical skill.

ORGANIC ANALYSIS.—Julius Springer, of Berlin, has recently published at 2.40m. Dr. L. Rozenzthal's *Grundzüge der chemischen Pflanzenuntersuchung*, an octavo of 124 pages, in which the methods of plant-analysis are dealt with in a practical manner. It begins with the general processes which serve to indicate what may or may not be looked for by the special methods that are fully detailed in the bulk of the volume. The latter part treats of alkaloids, glucosides, oils (fatty and essential), resins, tannins, albuminoids, enzymes, and all that make up the principal or active parts of plants. It is a concise and clear work, which we commend to investigators in place of "Dragondorff," which in some sections is now out of date.—*The Laboratory Manual of Organic Chemistry*, which Dr. A. J. Walker has translated from the Dutch of Dr. R. F. Holleman, is intended for beginners, and is published by John Wiley & Sons, New York, at \$1. It consists of a series of thirty-eight exercises, which take the student from the elementary consideration of the constituents of carbon compounds (so-called "ultimate analysis") to albumins. When it is considered that the whole gamut of organic compounds is thus traversed, and that analytical processes notable in each group are detailed for practical experiment, it will be seen that the book should be of real value to beginners in this branch of chemical practice.—An allied but quite distinct work is "A scheme for the detection of the more *Common Classes of Carbon Compounds*," by Frank E. Weston, B.Sc., F.C.S., which Longmans, Green & Co. have published at 2s. This is designed for those preparing for the B.Sc. "Final." In succession it gives the methods for C and H, C, H, and halogen, C, H, and O, C, H, and N, C, H, N, and O, C, H, and S, C, H, S, and O, C, H, S, and N, C, H, S, O, and N or halogen. These are followed by special reactions and solubility of carbon compounds. The bare bones of the methods are given (good on the whole, too), and Mr. Weston appears to have been determined to adapt the scheme solely to its purpose, for he has not put an index in the book.

At the Counter.

A LITTLEHAMPTON EPISODE.—Young Lady Customer: "A bottle of Vichy water, please." New and worried Apprentice (in an anxious aside to principal): "Fishy water! what is that?"

FROM N.N.W. AND N.N.E.—The following are "specialities" collected by an apprentice in a Glasgow suburban pharmacy: "Calceine minicla," "macnisha" or "menaze"; "tarick acid," "likless powder," "Applicake and Appannac wine," "Tits," "Armonia and upperdelder," "sedlithz poder"; "Ailmen's Eneracation"; "Fanastic powder"; "S-alley monick," "ing ointment"; "Sirp of siney"; "tincur of Mirr" and "Allos and Mhyre pills," "Obersordin cottin weding is much that will cover a brest."—From the neighbourhood of Dundee we have from a subscriber the following genial order: "Cake and wine; 1 sheet of wade age 10 month." The much mis-called ipecac. is of course indicated in the first request, but a sheet of cotton wool "age 10 month" is novel. It is probable that the writer had an idea that all children of ten months old are of the same dimensions.

"WHY DO CHEMISTS PRESCRIBE?"—Enter local Medico: "Oh, how do? Have you a good throat-spray?" Assistant (producing two or three varieties): "Oh, yes." Medico: "Oh, ah, yes. I suppose that's the chap. Now, how much to me?" Assistant: "Half a crown." Medico (much agitated): "But, I say, nothing off to the profession?" Assistant: "I am afraid no more. You see, our retail price would be three-and-six, and I am charging you practically cost-price." Medico (much relieved): "Oh, ah, yes. Now just put a little soda bic. in a bottle, and a dash of carbolic, and fill up"—(playfully)—"of course you will include that in the 2s. 6d. Good day." Half an hour later enter a customer: "What do you charge for throat-sprays?" Assistant: "Three-and-six" (produces one). Customer: "Yes, that's the very thing. I have been going to old So-and-so for my throat, and he said I wanted a spray, and the old bouncer charged me six-and-six for the same spray. Never no more!"

Italian Pharmacy:

A Few Notes on its Present Condition.

By AN ENGLISH CHEMIST.

THE profession of the pharmacist in Italy is gradually but surely undergoing change, and that change is certainly not in the direction of "pure" pharmacy. The chemist in England who reads that no doctor in Italy is allowed to dispense, save in certain unavoidable circumstances laid down by law, and that the number of pharmacies is limited, is tempted to look on this country as a favoured land. A closer investigation leads, however, to the discovery that many struggling pharmacists look with envy on the greater freedom enjoyed by their English confreres as to prescribing, etc.

The Italian pharmacist has in the past taken life very easily, and as long as dispensing and the sale of drugs brought in a fairly good living he has in the majority of cases been content, though his hours of business have kept him prisoner from very early morning till late at night. Now, however, the land of sunshine is waking up under the influence of greater commerce, and the people are bestirring themselves, a man being no longer content with a pittance. The result is showing itself in the increasing financial credit of the country. This commercial spirit is most apparent in the northern provinces, possibly owing to the foreign influence (German, French, and English) which has followed as a matter of course the opening of the railway routes over the Mont Cenis, St. Gothard, and Brenner Passes, and along the coast from Marseilles to Genoa. Also the Northern Italian has a different temperament from the Southern, and possibly lends himself more readily to hard work. The chief city is Milan, which claims, and justly, to be the foremost commercial town in Italy. In addition to its many warehouses, factories, etc., it possesses fine wide streets, with magnificent shops, the architecture of the best not being equalled in London. Here the largest wholesale druggists in Italy have their headquarters, and here, too, may be seen the new change in the pharmacies. No longer is the pharmacy exclusively reserved for professional purposes. I was able to quench my thirst at an elaborate soda-fountain run by an enterprising pharmacist, and very well patronised, too. The trade in perfumes and soaps is being taken up more extensively each year, and it is quite possible that hairpins will follow, as has been the case in England. The English lady abroad goes to the chemist and inquires for combs, brushes, etc., and after turning customers away time and again to the hairdresser, what more natural than that the pharmacist should decide to lay in a stock and meet the demand? Milan also rejoices in a co-operative society, and this "co-op." has found that the Italian laws governing the exercise of pharmacy have the same flaw as to companies as the English have. Of course permission being required from the authorities in order to open is a safeguard, but a powerful company can obtain that which an individual may sigh for in vain. So this society opened a pharmacy, branches followed, and cutting. Prices are now low in Milan, and feeling is rather bitter. In Italy there is an official tariff of drugs, containing the prices a pharmacist may legally demand. These have been arranged to show a very fair profit generally. Poisons have purposely been listed very high; the price for laudanum, as a case in point, working out about 3*l.* an ounce. There is nothing, however, to prevent underselling. The Milanese chemists, with the exception of the "co-op.," have, in order to limit cutting as much as possible, a price-list showing minimum prices to charge, an example taken at random being potash bicarb. 3*d.* per oz. Some of the better-class pharmacists do not follow the list, but charge higher prices, relying on quality, reliability, and personal prestige to maintain their *clientèle*. They also have a formulary of the Milan Hospital, the preparations in which are frequently prescribed by the doctors, and the prices of these have been agreed on also by pharmacists themselves, so that much trouble is avoided. Here, again, the price is a fixed minimum, arranged to suit the requirements of those who feel competition keenest. An example is—Twenty-four of these pills are sold at 1*l.* (10*d.*) by the

cheapest pharmacies, but the better ones obtain a considerably higher figure.

Ext. lucis vom.	...	...	aa.	0.02
Zinci oxidi	...	...	...	...
Ext. valerianæ,	...	...	...	...
Valerianæ	...	...	aa	q.s.
Ft. pil. j.	...	...	...	...

Photography is being taken up more and more, and "own specialities" are pushed. I noticed imitations of some of the best-known English proprietaries displayed on the counter of one pharmacy, and was told that the possibilities of the proprietary article are being realised at last. (81/5.)

ALMOND OIL v. OL. AMYGD. PERSIC.

AT Bow Street Police Court on Thursday, December 29, Edward Thomas, chemist and druggist, 73 Long Acre, was summoned, at the instance of the Westminster City Council, for selling as almond oil an oil which the public analyst certified to contain "100 per cent. of oil other than almond oil."

Mr. Cyril H. Kirby, of Neve, Beck & Kirby, solicitors to the Chemists' Defence Association, appeared for the defendant.

It was intimated that "Edward Thomas," the defendant summoned, is dead, and Mr. Percy Thomas, his son, who appeared, was the actual defendant.

The purchase was proved by Mrs. Webb and by George McNair, one of the sanitary inspectors to the Westminster City Council. In cross-examination Mrs. Webb denied that Mr. Thomas said anything to her, when purchasing, about there being two kinds of almond oil. She saw nothing of the label on the stock-bottle from which it was taken. The Sanitary Inspector in his evidence said Mr. Thomas drew his attention to the fact that he had written "Persic." on the label of the 6-oz. bottle supplied, but he (the inspector) did not know what "Persic." meant.

Mr. Kirby called the defendant Percy Thomas, who said that when Mrs. Webb asked for almond oil he at once informed her that there were two kinds—genuine and spurious—the prices being 4*d.* and 5*d.* an ounce respectively. She said she would have the cheaper sort, and he gave her the oil in dispute, labelling it "Persic." and drawing the attention of both the purchaser and the sanitary inspector to the fact that the stock-bottle was labelled "Persic." He kept the genuine almond oil as well as the peach-kernel oil in stock.

In cross-examination Mr. Thomas said he did not put "spurious" on the label because "Persic." was the usual word. He did not think it necessary to do so either, considering that he had drawn the attention of the purchaser to the fact that there were two kinds of oil.

Sir Albert de Rutzen (the Magistrate): What did you mean by "spurious"?

Witness: A cheaper oil obtained from a different source.

Sir Albert: But you do not dispute the analysis?

Witness: Oh, no.

Sir Albert: Then there was no almond oil, which the woman asked for, in the article you supplied at all.

William Johnston, pharmaceutical chemist, St. Lawrence Road, Brixton, deposed that it was a usual practice in the trade to call peach-kernel oil "almond oil." It is usually described in price-lists and on stock-bottles as "ol. amygd. exot." or "ol. amygd. persicaria," which meant "so-called almond oil prepared from peach-kernels." He produced the price-lists of Allen & Hanburys, Ltd., John Bell & Co., Ayrton, Saunders & Kemp, Ltd., and many other well-known wholesale druggists, in which the two oils are variously described as "ol. amygdal. dulc., B.P." or "ang." and "ol. amygdal. exot." or "persic." He also put in an advertisement by Messrs. Stafford Allen & Sons, Ltd., in THE CHEMIST AND DRUGGIST, containing the expression "peach-kernel oil, often called almond oil."

Mr. Kirby said the habit of calling peach-kernel oil "almond oil" was probably a loose one, but it was shown that the wholesale houses practised it universally, and the defendant had acted honestly in the matter.

Sir Albert de Rutzen said the case appeared to him to be quite clear. The woman was sent in to buy almond oil, and she asked for almond oil. She denied that anything was said about two kinds of oil, and, at any rate, she was supplied with an oil which contained no almond oil whatever. It was perfectly clear that she got something other than that which she was entitled to receive. He quite believed that the defendant had no intention to defraud. He had been misled by the practice in the price-lists and so forth, and thought he was right in selling something which he thought would suit the purpose for which he imagined the oil might be required. But a purchaser was entitled to get exactly what was demanded. Fined 5*l.* and 12*s.* 6*d.* costs.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

Syrupus Iodo-tannicus.

SIR,—Answering Dr. H. Martindale's letter in your issue of December 24, I would say that I have never had any difficulty with loss of iodine in making syrupus iodo-tannicus according to the formula given by me in the *C. & D.* of December 17. My point was that the Codex form without alcohol is an improvement, and that the tannin might be with advantage reduced. As for the flavouring, naturally there can be no argument about a question of taste, but I should like to know how Dr. Martindale manages to keep the glycyrrhizin of his flavouring from being thrown down by the acidity of the syrup.

Bootle, December 27.

HAROLD WYATT.

Hahnemann and the Use of Insoluble Metals in Medicine.

SIR,—I am very much interested in "Xrayser's" article in your issue of December 24, and I wish to thank him for much of the information it contains. My only object in troubling you with this letter is to remove any misconception in regard to Hahnemann's claims which may have arisen through imperfect statements of mine. Hahnemann laid no claim to the discovery of "the gold-cure." The letter I wrote to the Press was based on a condensed report of Dr. Albert Robin's paper, ascribing to that authority the opening-up of a "new vista in medicine" through his discovery of the medicinal powers of insoluble metals in infinitesimal quantities. This particular discovery I claimed, and still claim, for Hahnemann. Fuller reports of Dr. Robin's paper show that his method of obtaining infinitesimal preparations of metals is quite different from that of Hahnemann, and his inductions do not appear to be homœopathic. My reference to Hahnemann's article on *Aurum* was simply to illustrate his discovery of the power and uses of infinitesimal quantities of the metals. The demands of space compelled me to make my quotations short. I need not here refer to the long list of ancient authorities quoted by Hahnemann to show that he did not originate the idea of curing with gold, but if you can spare me the space I think I can give a few quotations which will make his position clear. He says:

In this place I will only speak of *gold*, and not of this metal altered by the ordinary chemical processes, consequently not of it dissolved by the action of acids, nor precipitated from its solution (falsifying gold), both of which have been declared to be, if not useless, then absolutely noxious, apparently because they cannot be taken without dangerous consequences when given in what is called a *justus dosis*, or, in other words, in excessive quantity. No! I speak of pure gold, not altered by chemical manipulation. . . . At the commencement of the eleventh century Avicenna ("Canon," lib. ii. cap. 79) says: "Powdered gold is one of the medicines against melancholy, removes fetor of the breath, is, even when given internally, a remedy for falling-out of the hair, strengthens the eyes, is useful in pain of the heart and palpitation, and is uncommonly serviceable in dyspnea." Abulkasem (Albucasis), at the commencement of the twelfth century, is the first who describes the preparation of gold powder in these words: "The gold is rubbed on a rough linen cloth in a basin filled with water, and the fine powder which falls to the bottom of the water is to be employed for administration." . . . This mode of preparation was imitated by Zacutus, the Portuguese, and he records the history of the case of a nobleman who had long been troubled by melancholy ideas, whom he cured by the use of a fine powder obtained by rubbing gold on a grindstone. . . . I thought I might attach more value to the testimony of the Arabians as to the curative powers of finely powdered gold than to the theoretical unfounded doubts of the moderns, so I triturated the finest gold leaf (its fineness is 23 carats 6 grains) with 100 parts of milk-sugar, for a full hour, for internal medicinal use. . . . I have cured quickly and permanently of melancholia resembling that produced by gold many persons who had serious

thoughts of suicide, by small doses, which for its whole treatment contained altogether from the $\frac{1}{100}$ to the $\frac{1}{1000}$ of a grain of gold.

Hahnemann goes on to explain that later experience showed that much more infinitesimal quantities were not less powerfully curative than the above, "especially in cases of the palatal and nasal bones, caused by the abuse of mercury prepared with mineral acids"; and Hahnemann adds in a foot-note the following remark, which proves that Hahnemann was aware of an earlier authority than Dr. Christian for the use of gold in mercurial or syphilitic affections. "The remedial power of the internal employment of gold in the evil effects of mercury was observed by Ant. Chalmetous (in "Enchiridion Chirurg., p. 402). It is possible that Hahnemann's article on gold was written before Christian's observations were published. It should not be forgotten by pharmacists that Hahnemann was the greatest pharmaceutical authority of his day before he discovered the homœopathic law and the power of infinitesimals. He was the author of the standard "Apotheker-lexicon" and the inventor of "Mercurius solubilis Hahnemanni," which is still official in Germany. Hahnemann was therefore perfectly familiar with the proportion and manipulations of all kinds of "medical materials."

Yours obediently,

JOHN H. CLARKE.

8 Bolton Street, W., December 25.

A "Not" Dropped Out.

SIR,—In your note on the judgment recently accorded us by the Civil Court of Marseilles—by which the three defendants, Brachet, Maille, and Chazot, who were indicted at the instance of the Hon. G. T. Fulford for infringement of the French trade-mark of Dr. Williams' pink pills, and were sentenced to three months', two months, and one month's imprisonment respectively, and to pay 2,000f. damages and costs—a remark occurs which is apparently based on a misconception. You state that the judgment defines the legal position of a proprietor of a medical trade-mark "who is a citizen of the Republic." Our president, the Hon. G. T. Fulford, is a British subject; and the judgment shows that the French law gives drastic punishment, irrespective of nationality.

Respectfully yours,

THE DR. WILLIAMS MEDICINE CO.

46 Holborn Viaduct, E.C., December 23.

There's Life in the Old Dog Yet.

SIR,—As an instance of the possibilities of known and approved remedies under the recent ruling, perhaps the following may interest your readers. There has lately broken out in my district an epidemic of "Chelsea Pensioner." I have so often had to compound it that the thing became a nuisance. I therefore determined to have it put up ready. I had a thousand labels printed, and distributed a thousand small handbills of similar character. The result is the sale, within the first few weeks, of about a dozen ls. jars, and I think it will lead to a regular and steady sale for the article.

Yours faithfully,

JASON. (89/5.)

[The wording on the label is "Chelsea Pensioner | the Old Soldiers' | Remedy for | Rheumatism, | composed of | Rhubarb, Sulphur, Cream of Tartar, Gum Guaiacum, and English Honey. | Dose: One or two teaspoonfuls."—EDITOR.]

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

252.69. *Aurelius*.—Remedy for Actinomycosis in Cattle. This is a strong solution of potassium iodide in infusion of cloves. To be of any use the dose of iodide should be at least 2 dr. night and morning in about a pint of cold water. The tongue and parts affected should also be scarified and painted with strong iodide solution. The owner of the animal should be cautioned as to the extremely infectious nature of the disease and its ready communicability to man. (2) *Milk-fever Remedy*.—We find this to consist of a solution of chloral hydrate strongly flavoured with essence of peppermint and coloured with compound tincture

of lavender. The dose of chloral hydrate for a cow with milk-fever is $\frac{1}{2}$ oz. When giving chloral internally injections of potassium iodide are made into the udder this being the treatment introduced by Schmidt, which has been wonderfully successful when compared with the older methods.

46/34. *O. R.*—Camera-bellows Renovator.—A suitable polish to use in the case of faded camera-bellows is the following:

Two eggs.	
Sperm oil	2 oz.
Acetic acid	2 dr.
Glycerin	2 dr.
Oil of turpentine	4 dr.
Methylated spirit	2 oz.
Erythrosin	$\frac{1}{2}$ dr.
Water to	10 oz.

Mix and apply with a piece of soft rag.

87/72. *Ferox.*—Liquid Annatto from the seeds.—There are several processes followed in making annatto extract, the one in which the seeds are bruised, mixed with water, and fermented being usually followed. The liquid is separated by straining, reduced to paste by evaporation, and finally by drying obtained in the solid form in which it appears in commerce.

61/54. *Vetlox.*—"Veterinary Counter practice" (3s. 6d., office of the *C. & D.*) is a veterinary book specially written for chemists' use.

64/55. *R. S.*—Dry-rot in Furniture.—The wood of the floor and skirting boards that is affected with dry rot should be taken out and replaced by new wood, which should have a coating of crude creosote on the side away from the room. Furniture should be treated with a solution of corrosive sublimate in methylated spirit (1 oz. to the pint), but if the customer wishes to prevent the disease spreading he will be well advised to do away with the affected articles—it is cheaper in the long run.

81/39. *Pot. Sulph.*—The stain imparted to the paint of a bath by liver of sulphur cannot be removed. The potassium sulphide has formed a sulphide with the lead of the paint.

80/60. *C. de W.* (Bruges).—Are you referring to the Blancmange-powders when you speak of "pudding-powder"?

27/25. *W. J. S.*—Calf-meal.—The formula you mention—ground linseed 7 lbs., barley meal 14 lbs., wheat meal 14 lbs.—is fairly representative of the foods on the market for rearing calves. The meal can be made with separated milk in place of water.

61/30. *J. N. H.*—Essence of Hop Ale:

Hops	4 oz.
Quassia chips	3 oz.
Orange peel	$\frac{1}{2}$ oz.
Rectified spirit	1 pint
Water	1 pint

Macerate fourteen days, filter, and add oil of hops 10 to 15 minims.

68/74. *H. J. J.*—Disinfectant for Hairdressers' Instruments.—A method was given in the *C. & D.*, September 24 page 558, but a more usual process is to dip the razors and combs in a solution of a soluble disinfectant, such as Jeyes' cyllin.

71/28. *Ignis.*—Fire-extinguishing Liquids for hand grenades:

1. Crude calcium chloride	20 parts
Sodium chloride	5 parts
Water	75 parts
2. Sodium chloride	1 oz.
Sodium nitrate	1 oz.
Ammonium chloride	1 oz.
Magnesium chloride	4 oz.
Water	1 pint

80/2. *I. D.* writes, in regard to our reply as to the Pernicious Effects of Tobacco (*C. & D.*, December 17, page 996), that Messrs. T. C. & E. C. Jack, 34 Henrietta Street, W.C., publish a booklet by Thomas Cartwright, B.A., B.Sc., entitled "Why Boys should not Smoke," price 6d. It is a well-intentioned, if slightly florid, production.

76/49. *R. H. G.*—Ringworm of the Scalp.—There are so many possible treatments for this disease that we can only indicate the outlines. First the hair must be cut well round the patches of ringworm and the head washed well with soft soap, the patient being directed to exercise great cleanliness, or the fungus will spread or be communicated to others. The part, having thus been prepared, is daily covered with the following ointment:

Acid carbolic	3j.
Ol. olivæ	3j.
Ceræ albæ	3j.
Ung. hydrarg. nitr.	5ij.
Sulph. sublim.	3ss.

M. S. A.

In place of this ointment a paint of equal parts of tincture and liniment of iodine is often used, the treatment being preceded by the application of turpentine.

76/36. *H. A.*—(1) Metal-polish.—Refer to the *C. & D.*, September 3, page 443. The second formula there given is of the class you desire. (2) Messrs. E. G. Wood & Co., Queen Street, Cheapside, E.C., do a large business in hiring out lantern-slides.

76/22. *W. S.*—Bleaching Cottonseed Oil.—Outlines of the chief processes were given in the *C. & D.*, February 21, 1903, page 315.

79/71. *J. O.*—Traces of aldehyde, butyric ether, oil of cognac, and vanilla would improve the flavour of the Sloe Gin. Essence of port wine, such as is sold for the use of aerated-water makers, is the simplest addition you could make.

82/38. *Ol. Ricini.*—The application of cocaine as you use it in teeth-extraction is not dangerous except in the case of those who have a weak heart. It is usual to employ the anæsthetic hypodermically, in doses not exceeding $\frac{1}{4}$ grain. Ethyl chloride is preferable as a local anæsthetic.

76/77. *C. G. W.*—Prescription-abbreviation.—*Q. q. h.* is quique quartâ horâ, every four hours. If quæque were two words the rendering you mention of "every hour" might apply.

76/39. *A. B. C.*—Gravy-salt.—This is a mixture of caramel and salt. A solid form of caramel is used or the salt may be mixed with the syrupy burnt sugar of commerce and evaporated to dryness on a water-bath. The proportions are about three of salt to one of caramel.

68/38. *Rus.*—Litmus Solution.—The object of the boiling with spirit which the British Pharmacopœia process enjoins is to remove the erythreïn and erythritin, and obtain in the aqueous solution the azolitmin only. The objections to the process are the waste of alcohol and the fact that some potassium carbonate is dissolved by the water. The former is obviated by the use of a reflux condenser and the latter by slightly acidifying the solution with acetic acid, then carefully neutralising with ammonia, and finally boiling to drive off excess of ammonia. A solution of litmus that has gone colourless through age is restored by exposure to air in a flat dish.

19/30. *J. H.*—Dutch farmers use an infusion of *tournefort en drappeaux* for colouring the outside of their cheeses. The colouring matter alluded to is similar to litmus, and is prepared by a process of steeping coarse cloth in the sap of a euphorbiaceous plant. The blue infusion is changed to red by the lactic and butyric acids of the cheese.

68/67. *C. W. H.*—The process of ridding a cottage of bugs is one requiring a good deal of patience, and must be systematically carried out room by room. The walls should be stripped of paper and the crevices in the walls and floors dressed with a solution of ung. hydrargyri 3ij. in ol. terebinthinæ 3xx. by means of a feather. Solution of corrosive sublimate in methylated spirit (1 oz. to the pint) is used where a non-greasy application is preferred. The next step is to stop up all air-passages and fumigate the room with sulphurous-acid gas. The final process is a thorough scrubbing of the woodwork, and then the house-decorators are given possession.

75/73. *Della.*—A formula for Boot-polish without turpentine will be found in the *C. & D.*, October 1, page 590.

68/55. *W. R.*—**Metol-Quinol Developer.**—We have had some complaints lately of developers made with metol and quinol precipitating but have not been able satisfactorily to account for the trouble. There are two kinds of metol—Andresen's, which is methyl-para-amido-phenol, and Hauff's, methyl-para-amido-meta-cresol—and it is possible that either of these makers has recently somewhat altered his product. Whose make of metol did you use?

66/79. *Salol.*—**Liquid Face-powders.**—A sample we examined some time back contained starch and French chalk in the proportion of 4 of starch to 6 of French chalk. This will give you the hint you need as to compounding a "liquid powder."

76/5. *Sindhi.*—**Tattoo-colours.**—It does not seem to matter what colours are used in the process of tattooing, but mineral colours are preferred on account of their greater permanency. Venetian red, Chinese blue, lemon chrome, Brunswick green, and the umbers are all used, and are unobjectionable. Mercury sulphide is sometimes employed. But we are told the colour alters in time.

86/64. *A Trading Chemist* should have sent his name and address. The only means we have of getting these would be to submit his letter to the Secretary of the Association which he condemns, which, however, we do not do.

85/52. *Emulsion.*—The cod-liver oil cream with Parash's syrup cannot be made a perfect emulsion as it stands, and it is quite obvious that the very thin and bitter cream to which you refer was not compounded according to the prescription.

87/8. *N. M. & Co.*—We cannot tell you what the proprietary articles are composed of, nor do we undertake the analysis of such things.

Information Wanted.

Postcard replies to any of subjoined inquiries will be esteemed.

85/45. Who are agents or makers of French hot-water apparatus used as a substitute for the I.R. hot-water bottle?

86/17. Makers of moulded alum and copper sulphate points, in bulk and mounted.

88/41. What is "Spanish brown"? It is asked for as an ingredient in a horse-powder to prevent "roaring," combined with tartar emetic, resin, and ginger.

28/19. What is the best typewriting-machine for ordinary dispensing labels? One that grips them well is needed.

CHEMISTS' CALENDARS, ETC.

Messrs. Howards & Sons, Ltd., Stratford, issue a very neat card calendar which has upon it portraits of two of the founders of the house—Robert Howard and John Eliot Howard. Sprays of cinchona form appropriate surroundings for the portraits.

Messrs. Ludford & Co., bottle-manufacturers, Brooksby's Walk, Homerton, N.E., send us one of their 1905 calendars. The central part of the card is pierced for monthly calendar cards, the rest being neatly lettered in silver on a black-enamelled ground.

Quite the finest thing in calendars this year is that sent out by Mr. Fredk. Boehm, 16 Jewry Street, E.C. The calendar is in card form, with monthly tear-offs, and is printed in shades of green. In the centre is a bas-relief, in white, of the head of Ceres, the Goddess of Harvest, and this being on a dark-green plaque produces a very fine effect. The size of the card is 16 inches by 13 inches.

In the almanac issued by Messrs. Severs & Bateson, 25 Stricklandgate, Kendal, a feature is made of agricultural specialities. There is a letter to farmers which brings home in a forcible way not only the benefits of sheep-dipping in general, but the advantages of Severs & Bateson's sheep-dipping composition in particular. The other departments of the business are also well represented in the almanac, and there is local information which will make the book one for reference all the year round.

The novelty in the almanac issued by Forshaw & Co., Bradford, consists in noting under each day in the year

one of the firm's specialities. There is also given a list of the sentiments attributed to various flowers, a digestion-table and some local information, such as the various feasts in the neighbourhood of Bradford. The optical department is kept to the fore.

Coming Events.

Notices for insertion under this heading should be received by Editor on Wednesday of each week.

Saturday, December 31.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, W., at 3 P.M. Third lecture on "Ancient and Modern Methods of Measuring Time," by Mr. Henry Cunyngnam. The course will be continued on January 3, 5, and 7.

Wednesday, January 4.

Pharmaceutical Society of Ireland, 67 Lower Mount Street, Dublin, at 3 P.M. Council-meeting.

Stockport Chemists' Association, Albert Hall, at 9 P.M. Annual meeting.

Thursday, January 5.

Röntgen Society, 20 Hanover Square, W., at 8.15 P.M. Mr. C. E. S. Phillips will describe a new automatic vacuum pump, and a method of obtaining strongly adherent films of aluminium on glass. Mr. Phillips will also read a note on "The Coloration of Glass by Radium Radiations."

Friday, January 6.

Blackpool Chemists' Association, Palatine Hotel, at 9 P.M. Ordinary meeting.

THE JUNIOR PHARMACY BALL is to be held on March 1. Mr. Percival Trick, Salisbury House, London Wall, E.C., is the Hon. Secretary.

THE ANNUAL FESTIVAL DINNER of the Commercial Travellers' Benevolent Institution is to take place at the Prince's Restaurant, Piccadilly, W., on February 10, 1905.

A COURSE OF BACTERIOLOGY for the Institute of Chemistry examinations, and an evening course of bacteriology, are to be held at King's College, Strand, W.C., commencing January 9. Applications should be made to Professor Hewlett, at King's College. The fee for the evening course (January to March) is 3l. 3s., including all materials and the use of a microscope.

CHEMISTS' BALL.—Tickets for the Chemists' Thirty-ninth Annual Ball, which is to be held at the Whitehall Rooms, Hôtel Métropole, W.C., on Wednesday, January 18, 1905, are now ready. Lady's 12s. 6d., gentleman's 17s. 6d., including refreshments, supper, and wine. Application for tickets (accompanied by a remittance) should be made to the Hon. Secretary, Mr. Richard A. Robinson, jun., 72 Great Russell Street, London, W.C., or to any of the stewards.

College Notes.

LONDON COLLEGE OF PHARMACY.—The annual dinner and distribution of prizes will take place on January 20, 1905, at the Holborn Restaurant. Invitations have been sent to all students, past and present. Any student who may not have received his notice is requested to send his present address to Mr. Wootton, 323 Clapham Road, S.W.

WHERE TO STUDY.

THE FOLLOWING EDUCATIONAL INSTITUTIONS are advertising in this issue:

South London School of Pharmacy, 325 Kennington Road, S.E.

Metropolitan College of Pharmacy, 160 and 162 Kennington Park Road, S.E.

London College of Chemistry, 323 Clapham Road, S.W.

City of London College, Moorfields, E.C.

Manchester College, 225A and 227A Oxford Road, Manchester.

Northern College of Pharmacy, 100 and 102 Burlington Street, Manchester.

Edinburgh School of Pharmacy, 26 Clyde Street, Edinburgh.

Imperial College of Pharmacy, 49 and 51 Imperial Buildings, Ludgate Circus, E.C.

West of Scotland College of Pharmacy, 157 St. Vincent Street, Glasgow.

Leeds College of Pharmacy, Clarendon Road, Leeds.

Trade Report.

42 Cannon Street, London, E.C., December 29.

As usual at this season of the year, business in drugs and chemicals is of quite a retail character, and not until next week will matters resume their normal course. The year has not been allowed to close without serious trouble in the shellac-market, as on Wednesday it was reported that one of the principal operators was in financial difficulties, and this fact, taken in conjunction with lower prices in Calcutta, has brought about a considerable fall in the price of "futures." Otherwise there are no alterations to report. There is a firm tone in the opium-market, and previous to the holidays a fair business was done, including good manufacturing Smyrna at 7s. 9d., and up to 8s. 9d. for Tokats. Persian is firmly held at 13s. 6d., and very little is obtainable. Advices from Constantinople in regard to opium point to a firm market there, in spite of the large stocks, and bids at the figures prevailing a fortnight ago are not now entertained. The sales of opium on the Smyrna market during the week ended December 16 amounted to 26 cases, including 20 cases Yerli talequale at 7s. 5d. per lb., f.o.b. Notwithstanding favourable weather, large stocks, and small demand, Smyrna holders still maintain a firm position, and the American buyers have experienced great difficulty in securing what they wanted. The arrivals in Smyrna to date amount to 4,072 cases, against 1,647 at same period last year. As regards cod-liver oil, our Bergen correspondent writes on December 24 that the market is very quiet, as is usual at this season. Finest non-congealing Lofoten cod-liver oil is very scarce, but holders appear disposed to accept lower figures—about 155s. per barrel, f.o.b., Bergen. The arrivals of new oil are still insignificant and no price can be quoted. News from the cod-fishing districts is scarce. The quality of the cod is still reported to be satisfactory, but the catch is in most places trifling, owing to want of bait. The cod is reported to have again disappeared from part of the coast.

A further advance has been practically agreed upon by the makers of santonin and will probably be announced in a few days. The article, as is well known, is controlled by a close monopoly, the members of which have taken advantage of their position to drive the price up to an extravagant figure, but in spite of this the consumption appears to be increasing, the drug being a specific. Crude carbolic acid is a shade easier at 2s. 3d. per gal. for 60 per cent. and 2s. 8d. to 2s. 9d. for 75 per cent.; cresylic is 9d. to 10d.; 39° to 40° C. is unaltered at 6½d., and 34° to 35° C. at 6½d. per lb. The auction of cinchona to be held at Amsterdam on January 19 will consist of 1,246 bales and 381 cases Succirubra, 5,644 bales Ledgeriana, and 2,099 bales hybrid bark, or 9,370 packages in all.

Previous to the holidays the shellac-market for delivery declined some 15s. per cwt., and much disappointment was shown by "bull" operators at the collapse of the December position, the market closing with a very depressed and weak tone. After the holidays the market opened very flat, added to which it was reported that a prominent operator was in financial difficulties. As a fact, the speculative market has been sagging for over a month past, and the present situation puts an end to the inflated prices and the so-called syndicate or "corner." On Wednesday some 700 cases sold for delivery at much lower prices, including TN for January at 170s. (this position sold at 224s. on December 1) and March at 150s. Ordinary to fair second Orange TN qualities have been sold on the spot at from 195s. to 200s. Good and fine Orange marks are worth from 210s. to 220s. per cwt.

Cablegrams.

SMYRNA, December 28:—The sales of opium for the week ended Wednesday amount to 50 cases, and the market is tending firmer owing to cold weather.

HAMBURG, December 29:—Refined camphor and carnauba wax are firmly held. Japanese wax for forward delivery is quoted 95m. per 100 kilos.

NEW YORK, December 29:—A dull tone prevails. Cascara sagrada is quiet at 7c. per lb. Senega is again

slightly weaker at 65c. per lb., and a further advance has to be recorded in golden seal (hydrastis), which is now \$1.55 per lb. Peppermint oil is weak at \$3.50 for tin oil, and the same may be said of menthol at \$2.50 per lb. Cod-liver oil is neglected, and \$46 per barrel will still buy Norwegian. Citronella oil is scarce at 32c. per lb.

The Debacle in Shellac.

The continual sagging away of the shellac "futures" market has at length led to a sensational collapse, and the year has not been allowed to close without serious trouble in Mincing Lane. When accounts for the December position were closed up it was found that one of the principal operators was in financial difficulties, with the usual result that the deposits on "differences" were not met and in some instances they were only partially met. The consequence has been that the market is very depressed, and prices of "futures" have fallen considerably, although there has been a slight recovery to-day. When it is considered that the December position was sold some time ago at 280s., and previous to the holidays was offering at 190s., it will be seen that the loss involved is considerable.

MARKET MOVEMENTS IN 1904.

In indicating briefly the leading features which have characterised the drug and chemical markets during the past year, we cannot overlook the fact that for the dealer in Mincing Lane produce, the year 1904 has proved another lean and unremunerative one. This may be attributed to several causes, the chief of which has been the increasing tendency of the wholesaler to restrict his requirements from almost hand to mouth and keep stocks down.

Speculation,

on the other hand, has been more rife than ever in cotton, sugar, shellac, cloves, camphor, menthol, and peppermint oil. The prospects of some of these articles at one time or another have looked so rosy from a speculator's point of view that many to the sorrow have been tempted to add these precarious transactions to more prosaic business. Considerable sums of money have thus been lost over menthol and cloves, and just as the year closes a sensational collapse has occurred in shellac. Tightness of money in certain quarters has led to articles being sacrificed on many occasions at below current rates, and especially has this been the case with menthol, the regular appearance of which in public auction "without reserve" caused much dissatisfaction among private holders. The speculation in refined camphor, too, has not yielded that amount of profit expected of it, although the year closes with every indication of an advance. Quinine has this year lost much of its old attraction as a speculative article; others more promising have taken its place *pro tem.*, in addition to which makers have been exceedingly chary in altering their prices, thus affording little scope for speculation. There has been a dark horse outside the "ring" for some months past, and this is the chief reason why makers have not had a free hand when altering their prices. Indeed, the official price of German sulphate has not moved more than one penny either way, and eight alterations only have been made during the year. The makers' price opened at 1s. 1d. in January, and touched its lowest point, 11½d., in February. In April it was back at 1s. 1½d., but May saw a reduction to 1s. 0½d., and in October it stood at 1s., at which it remains. The exports of bark from Java have again established a record, exceeding those of any previous year, and this of course has had a predominating influence on the market. It may be noted, however, that the average quinine-content of the manufacturing-bark shipped throughout the year has been uniformly less, and this to some extent nullifies the importance of the increased exports. However, Java shipments have been so large that speculation has been kept within narrow bounds. That there has been a steady consumption of quinine is shown by the fact that these unusually large shipments of bark have practically all been absorbed at the Amsterdam auctions. Moreover, the unit on no occasion has been allowed to fall below 6c. (its lowest point was 6½c.), and, taking the average price of quinine at 1s. per cz. throughout the year, it will be seen that makers have been working on a narrow margin of profit. Although dearer quinine is justified on the part of makers, the aforesaid outsider has been the chief obstacle in the way.

Among Fine Chemicals and Alkaloids

by far the greater amount of interest has centred in camphor, owing to the great scarcity of crude, the shipments of which from Japan during several months of the year ceased entirely. The rise in refined commenced with the opening of the year, and at that time the outlook was regarded as serious. With the commencement of hostilities between Russia and Japan prices further advanced, until, in March, English refined in bells was quoted by refiners at 4s. 3d. to 4s. 6d. (the highest quotation). In April an easier tendency commenced, and the summer was characterised by a period of depression, bells falling as low as 2s. 5d. With the autumn a steady but gradual advance was initiated until to-day we have got back to 3s. 6d. Japanese tablets, in which a large and increasing business has been done, have kept slightly under the English price throughout. The short supply of crude camphor is attributed to several reasons, the chief being the differences which exist between the camphor prospectors and the Japanese Government in regard to the unremunerative prices offered by the latter. These differences, it appears, have so far proved a stumbling-block to the development of the industry in Formosa, added to which the licensed prospector carries his life in his hands. Camphor also enters largely into the composition of smokeless gunpowder, of which Japan at the present time is a large consumer. A feature of the trade this year has been the increasing output of the refined article produced by Japan, which has been made a medium for speculation. Bismuth has only altered once during the year—viz., an advance of 33 per cent. this month. Salts, in sympathy, advanced considerably. The cause we believe is attributed to the Russo-Japanese war; as large quantities of the salts, especially subnitrate, have been shipped East. The bismuthing appears to be on a sound basis as one heard so little of outside competition, added to which there is a regular and steady consumptive demand for the salts. The bromide-market during most of the year has been in an unhealthy condition, and the long-pending reduction took place in October, when a decline of 8½d. per lb. in potassium bromide was announced. The consequence was that everybody bought as heavily as makers would allow, and at the present time the official quotation is quite nominal at 1s. 2½d., several pence above this figure having been paid from second-hands. American make, not guaranteed B.P., still menaces the market, and only last week there were sellers at 1s. 3d., c.i.f. The high value of crude cocaine has compelled makers to advance the hydrochloride on two occasions, and although the export to India is not what it was, prices are on a higher plane than in 1903. Chloral hydrate has advanced on several occasions, due principally to the increased cost of spirit, which has also affected the price of gallic and tannic acids and sugar of lead. It may here be pointed out that the duty on chloral hydrate on entry into the U.S.A. has been raised to 55c. There has been a steady decline in the price of chloroform, owing to the strenuous endeavours of the older makers to compete with a comparatively new maker. Codeine stands where it was, a reduction of 7d. per oz. in March being followed by an advance of 7d. in November. Crude iodine has twice advanced by 1½d. per oz. to 9d., preparations following suit. Here, again, the Russo-Japanese war has stimulated the demand, and although the Japanese iodide-makers are busy with their local demand, they are still able to make small occasional shipments to this country. The demand for iodoform has of course been unusually large. Lithia carbonate declined to 2s. 6d. in July, and it was not until early this month that the price more than doubled itself, consequent on a mutual understanding between makers. Morphine has not fluctuated more than 2d. either way, the price having been fairly steady in spite of the decline in opium. Quicksilver is 10s. per bottle lower, having been reduced on four occasions by 2s. 6d., but mercurials, although lower, are not so prone to respond to every fluctuation in the metal. Salicylic acid has been steady and very cheap, the only desire being to secure business in face of the employment of new remedies. A close monopoly now controls the santonin-market, and this has enabled the makers to advance prices on four occasions, in addition to which export-duties are

now levied on raw material and the finished product. Eserine, pilocarpine, and veratrine are lower. Glancing back at many of the prices of fine chemicals, we find that more articles have advanced than have receded. This is no doubt due to a better understanding between makers and increased cost of raw materials.

The year has been marked by considerable activity in menthol, and prices have shown very wide fluctuations at times. A feature has been the persistently large quantities offered without reserve at the public sales almost throughout the year. Price under these conditions showed a steady decline—e.g., 19s. was paid in January and 8s. in November. The article has more than ever become a speculative one, with the result that the legitimate user has bought sparingly. The decline is due to the exceptionally favourable result of this year's peppermint-harvest in Japan, but prices now appear to be on a more settled basis, and we should not be surprised to see a speculative upward movement by the turn of the year. Lately a report has been received *via* the United States that the Japanese Government contemplate making a monopoly of the menthol-business, but no official knowledge is obtainable on this point. Meanwhile Japan is the only country producing menthol, and probably begins to realise its value.

The values of citric and tartaric acids have fluctuated within narrow limits, especially citric, which now stands almost at the opening price in January. It has by no means been a profitable year for the makers, owing to the uncertainty of the concentrated-juice market. Tartaric acid closes quite 2d. per lb. lower than in January, and cream of tartar of the highest grade is about 3s. lower. Business in cream of tartar and tartaric acid has been rendered much more difficult this year on account of the prosecutions under the Sale of Food and Drugs Acts.

Among Crude Drugs

we find that regular shipments of Cape aloes have been made to this market, but prices are considerably lower; 47s. was paid for good bright in January, but this grade brought 28s. in December. Good Socotrine keg aloes has been well maintained in price. Fine livery Curaçao has been scarcer than ever, and gourd aloes is entirely wanting. Sumatra benzoin of fine quality has been extremely scarce, but other grades have been plentiful. Siam continues to find an outlet at high prices, but Penang gum is now seldom seen. The output of cardamoms in Ceylon again shows an increase, and the prices paid in London have been exceedingly low. There are prospects, however, that the forthcoming year will show a reaction, as means are being taken by Ceylon planters to reduce the output. Larger quantities of elemi than usual have been received, and prices have declined. Gamboge has been comparatively scarce and dear. There have been no violent fluctuations in ipecac. Fair Matto Grosso opened at 5s. in January, touched the highest point in March—5s. 3d.—but in September it sold at 4s. 4d., the lowest price during the year; and by December it recovered to 5s. 3d. Minas has, as a rule, sold about 3d. under these prices. About one hundred bales of East Indian ipecac have been shipped this year, and as the root is plump and of good alkaloidal quality, it has met with a ready sale at from 4s. 6d. to 5s. 3d. per lb. The imports of Cartagena ipecac have greatly fallen off compared with 1903, and the price has approximated more closely to that of Rio. Jalap has continued low in price—round about 5d.—but the market has been glutted with low-testing quality, the rejections of U.S. ports. The full effect of the export-tax on kino has not yet been felt, but this is only a matter of time. Increased attention has been paid to lycopodium, the use of which appears to be increasing. Fairly high prices have been paid for nux vomica, but large buyers can always purchase in India at many shillings below the spot price, as there are practically unlimited quantities waiting to be collected. The price has been low for so many years that there has been little inducement to collect. Spanish saffron has declined considerably, but latterly a firmer feeling is evident; the crop appears to have been fairly large. Among the American indigenous drugs, senega is lower than it was in January. The demand has been disappointing, and

mostly of a hand-to-mouth character. This is somewhat strange considering the popularity of the drug. Cascara sagrada is another drug which has disappointed holders, and the high prices which prevailed in the earlier part of the year have sensibly declined. Golden seal (*hydrastis*) has touched the highest price recorded.

It has been a disappointing year for distributors of cod-liver oil, as prices almost without exception have steadily declined during the past twelve months. At the beginning of the year the price of finest non-congealing Norwegian oil was about 420s. per barrel, but by the middle of February, when the catch was assured, it had dropped to 215s., and although subsequently rising to 280s. in April, it fell away again continuously, and in June oil was offering at 155s. to 160s., touching 150s., f.o.b. (the lowest point), in September and October. The market has indeed been a surprise to anybody who knows anything about cod-liver oil, and the article leaves a less to many wholesalers. The strange part of it is that at no time has there been a great accumulation of stock, although of course the Norwegian output was a considerable improvement on the famine year of 1903. Rather one must look for a decreased consumption on the part of the public as a result of the extreme prices they had to pay a year ago. Turkish opium has been fairly cheap this year, owing to the excellent crop, the yield of which was well over ten thousand cases. Prices have steadily declined. Persian, on the other hand, has been comparatively scarce, and is about 2s. 6d. dearer than in January.

In Essential Oils

American peppermint is again the leading article of interest, although the amount of business done this year has been on a smaller scale than that of last. This is doubtless owing to the fact that consumers have steadily restricted themselves to current requirements. Taking H.G.H. as the basis, we find 14s. 6d. was the spot price in January, but in February it touched 13s. 6d. (the lowest point), and from that time onwards the price advanced to 17s.—the highest point. During this period there have been several slight reactions, owing to manipulations of speculators, but the general tendency has been slowly upwards. It has been agreed that the American crop is at least one-third less than that of last year, and if it had not been for the fact that the Japanese crop of peppermint oil proved extremely large, much higher prices would have been seen for American. As it is, several parcels have been re-shipped to the United States, which has also been a buyer of Japanese oil, even though there is a duty of about 2s. per lb. to pay. Among the Chinese essential oils, star-aniseed and cassia oils have proved quite uninteresting from a speculative point of view, and although the former has certainly improved in price since the beginning of the year it has been a disappointing article. Cassia, too, has lost its hold on speculators, and the demand has not been so active as in previous years, the fluctuations having been of an unimportant character. Clove oil has had many ups and downs in consequence of the large speculations in the spice. Keen competition has been prevalent, and on balance the market closed 1s. per lb. lower than in January. Citronella oil has ruled at a low figure during the greater part of the year, but latterly there has been a substantial rise owing to unquestionable scarcity on the spot. Adulteration has not been so prevalent this year, and there are indications that the Ceylon Government will move in the matter. Pamber's test has not been favourably received on this market, as it does not give reliable results. Lemongrass oil is considerably dearer than it was, and its high value has also affected citral, the demand for which is increasing. Eucalyptus oil has also improved in value, the Australian variety still being paramount. Attention should be called to the fact that several large parcels have been grossly adulterated with castor oil. Camphor oil has advanced in conjunction with camphor; and higher prices have had to

be reckoned with for several important French essential oils, including lavender and spike, the latter having risen to a famine price. Adulteration of spike oil is as prevalent as ever, and in soap-making the oil is to some extent being replaced with cheaper substitutes, such as rosemary. French lavender oil has likewise shown a short crop this year, and prices have also advanced. The values of Sicilian essential oils of lemon, bergamot, and orange have on the whole improved, compared with last year. The lowest price ever recorded for lemon oil—viz., 2s. to 2s. 1d.—was touched in March, but by June there had been a sharp upward movement, which was followed by the usual reaction. However, prices are on a better and sounder basis than last year. Bergamot and orange oil have also improved in value. Sandalwood oil has shown an inclination to advance, but excessive competition on the part of drawers prevents a material rise, although at the Government auctions held lately in Mysore all-round dearer prices were paid for roots.

Considered as a whole, the

Heavy Chemical

market can scarcely be said to have been in an unsatisfactory condition. In June, July, and August the all-round demand was perhaps somewhat slack, but during the remaining period of the year the works have for the most part been well employed, and such has been the prevailing condition at all the main centres of the industry. With orders coming in regularly stocks have never really been over-abundant, and, as a consequence, values all along have maintained a firm tone, and, with a few exceptions, they have not been subject to important fluctuations. As regards alkali-produce, the market at the early part of the year quickly recovered from the usual slackness caused by holidays and stocktaking, etc., and the steady demand which arose, both on home and export account, for caustic soda, ammonia, alkali, soda crystals, and bicarbonate has for the most part been well maintained all through. Soda crystals were for a short time affected somewhat in value by inferior foreign quality, but soon regained a steady position. Bleaching-powder began the year with a steady tone at about 4l., advancing to 4l. 7s. 6d. to 4l. 10s., but, owing to poor demand, did not retain this position. Business in this product for 1905 began early, and first orders were booked at about 4l. 15s. per ton, f.o.b., and later at 4l. 10s. to 4l. 12s. 6d. Present figure for next year is about 4l. 7s. 6d. Saltcake has maintained a strong position all through, and from standing at about 30s. touched 37s. 6d. to 40s. per ton, and good business for 1905 has been done between these figures. Chlorates began in a somewhat depressed condition at from 2½d. to 2½d., but about end of July were advanced to 3d., and have improved to 3d. to 3½d. Yellow prussiates of potash and soda have only been fairly active, and in the year show a decline of ¼d. per lb. Sulphate of ammonia began with a very firm tone, which, however, gradually declined until about the middle of August, when values were about 20s. per ton down. Since then there has been a steady improvement, with the result that the decline has been changed into an advance of from 2s. 6d. to 7s. 6d. per ton, according to centre. Bichromates have been in fairly steady request and are better, seeing the discount was early in the year reduced from 4 to 2½ per cent. Brown acetate of lime shows an advance of about ¾d. per ton, which has mostly taken place since July, owing to good demand and scarcity. Lead, zinc, and magnesium products have for the most part been in average demand at steady rates. Benzols for a large part of the year—about April to October—only moved moderately well, and ruled low in value. The decline has since been recovered. Alumina-products have all along been steady at somewhat low rates, and the consumption has been about an average one. Barium-products have all ruled firm, and have been affected by the scarcity of the mineral carbonate (witherite). The demand has been a steadily increasing one, and improved values are probable. Generally speaking, the outlook for next year is a favourable one both as regards main and miscellaneous products.

The year closes none too brightly for most of those in business, but there is some confidence that 1904 is the last of the lean years for some time to come.